

CHALLENGES AND STRATEGIES FOR RECRUITING CHILDREN AND THEIR PARENTS FOR
EVALUATION OF KIDS' COOKING PROGRAMS

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ABSTRACT

Children in Canada are generally healthy but are affected by obesity and nutrient insufficiencies. Nutrition education and cooking programs have a positive impact on food and nutrition knowledge, skills, and attitude of children. This study was an evaluation focused on Kids Kitchen, a five-week afterschool program that taught grades four and five students (9 to 11 years) basic food and cooking skills. Phase 1 explored the nutrition knowledge, skills, and behaviours of children after participating in the program. Phase 2 interviewed key informants about the challenges of recruiting children and parents for evaluation and research studies. Qualitative interviews were used in both phases. In phase 1, four children (N=4) participated from one school. Preliminary findings were: 1) participants had food related interests and experiences prior to participating in the program, 2) participants had different learning experiences in the program, 3) parents and other adults influence and provide support to the children, 4) participants depended on their parents in food-related activities, 5) participants had a positive Kids Kitchen experience, 6) participants applied at least one skill at home after the program, and 7) participants had no nutrition behaviour change as a result the program. In phase 2, key informants (N=8) participated. Themes were categorized into two categories: recruitment challenges and recruitment strategies. Recruitment challenges included: 1) recruitment of children and their parents in schools is a formal process, 2) reaching out and recruiting parents, 3) communication message and approach, 5) negative views on institutions and research, 6) accessibility issues, and 7) transportation limitation. Recruitment strategies were: 1) building relationships, 2) effective communication, 3) promoting the benefits of participation, 4) prizes and incentives, and 5) monitoring and barriers reduction. Future research of the Kids Kitchen program should focus on creating a comprehensive evaluation using a variety of methods. Understanding the challenges of recruitment and using effective strategies will help in recruiting children and parents when evaluating programs.

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DEDICATION

To my children, with love!

Curiosity, knowledge, wisdom, creativity and morality; these are what I want to raise you with.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Childhood is a critical life stage. Children learn and transfer their knowledge and behaviours to later stages in life. Some behaviours during this period could also be the base of originating chronic conditions such as cardiovascular diseases and type 2 diabetes (Mahan, Escott-Stump, & Raymond, 2012). Children's nutritional knowledge and eating behaviour are influenced by what they learn at home and school. Nutrition education programs are valuable tools to empower children and teach them food skills as life skills (Contento, 2007). The Kids Kitchen afterschool program offered by CHEP Good Food Inc. (CHEP) in Saskatoon's Catholic and public schools teaches children basic nutrition and food preparation skills.

Program evaluation is a substantial part of nutrition education programs. Program evaluation is the process of determining the impact and worth of the program in relation to what the program aims to achieve (Contento, 2007; Last, 2007). Evaluation research purposes are to judge, to determine the effectiveness of a program, and/or to help with decisions about future programs (Patton, 2002).

This thesis describes a program evaluation of Kids Kitchen, an initiative of the Child and Hunger Education Program (CHEP) in Saskatoon.

1.2 CHEP and the Kids Kitchen Program

Child Hunger Education Program Good Food Inc. (CHEP) is a charitable non-profit organization that was established at the end of the 1980s in response to food insecurity in Saskatoon (Kouri Research, 2013). CHEP works in improving food access and food security in Saskatoon's community by working with children, families, and communities to achieve CHEP's vision of a food secure, socially just, and environmentally responsible community food system (CHEP, 2010a). To achieve its mission, CHEP's goals are to facilitate access to food in the community, build skills and capacity, maintain sustainability of

the food system, create and enhance partnerships, and develop social enterprise. At the time of the study, these goals were:

- “To improve access to healthy affordable food;
- To support people and communities in developing skills and building capacity;
- To work towards a sustainable food system;
- To develop and nurture strong partnerships; and,
- To develop sustainable social enterprise ventures that support our vision.” (CHEP, 2010a, para 4).

CHEP offers a variety of programs and develops social projects and community partnerships to achieve its goals and vision. CHEP’s programs are offered in schools and in communities around Saskatoon. These programs target people from all ages. Children are the target group for several programs such as The Big Crunch, Fresh Food Buffet, Nutrition Positive, Infant and Children Nutrition, and Kids Kitchen. Families are targeted in programs that include Good Food Box, Fresh Food Markets, Collective Kitchens, Nutrition Education, and Aboriginal Partnerships. In addition, there are some programs that are offered for Saskatoon communities: Community Gardens, Backyard Gardening Program, Seniors Stores, Social Enterprise, Community Market, and Community Outreach and Events (CHEP, 2010b).

One of CHEP’s programs is Kids Kitchen. It was started in 2007 by a school principal, who approached CHEP after learning about the need for teaching children basic cooking and food preparation skills (CHEP, 2013a; Health Canada, 2010a). The goals/objectives of the program, according to CHEP’s website, were to:

1. “Support students in acquiring important life skills. Students would learn safe food handling skills/ learn safety in the kitchen /learn about food preparation/ learn to read and prepare a variety of recipes.
2. Support students, some of whom are the major caregivers for their younger siblings, in learning how to cook a variety of nutritious meals.

3. Promote healthy eating.
4. Enable students to bring home healthy foods for their families.” (CHEP, 2010c, para. 3)

Kids Kitchen was and continues to be a five-week hands-on after school cooking program for grades four and five (9 to 11 years old), offered at school kitchen facilities. Each weekly session is for 90 minutes. Participants cook a meal from scratch and learn about different topics including kitchen and knife safety, hand washing and food safety, reading and following a recipe, measurement of ingredients, and Eating Well with Canada’s Food Guide (Condie & Hartl, 2012; Health Canada, 2010a). After each session, students take home the meal they made for their families.

Kids Kitchen collected some evaluation data. The 2008/2009 Kids Kitchen program incorporated an evaluation with a focus on knowledge and skills on food safety, cooking, and nutrition using pre- and post- knowledge tests. More questions were answered correctly at the end of the last session than at the first session (Health Canada, 2010a). Some parents of participants reported that their children were helping more in the kitchen and that they were using some of the skills learned at Kids Kitchen (CHEP, 2009). Subsequent evaluations also found positive outcomes (CHEP, 2010). Children gained knowledge and skills in food safety, kitchen safety, knife skills, and food measurement. Children also learned about healthy eating, nutrition labels, food symbols, Canada’s Food Guide, the healthy plate model, calcium and vitamin D, and about beans. Children took food home with them to their families, which was appreciated by parents (CHEP, 2010d). In 2011, Kids Kitchen was provided to 115 students. Participants reported they had gained new cooking skills and improved their food preferences (e.g. trying and liking beans). They also felt empowered, confident, and proud about their abilities to cook and to prepare food (CHEP, 2011). In the 2012/2013 outcome report, 13 Kids Kitchens were offered at 10 schools. These Kids Kitchens taught nutrition and basic cooking skills to 121 children (CHEP, 2013a).

1.3 Problem

Program evaluation is an essential part of any program. CHEP values program evaluation and believes that evaluation is important to its programs (CHEP, 2013a). CHEP uses a variety of methods to

evaluate their programs such as surveys of program participants, staff reports, and purchasing data (CHEP, 2013a).

Before the time of this study, all evaluations of the Kids Kitchen program used simple tools and short surveys throughout the years that was described as “informal” (Health Canada, 2010a). These evaluations focused on receiving feedback and comments from children, parents, schools’ staff, volunteers, and the program facilitators (Health Canada, 2010a). The program used a tool called Kids Kitchen Passport, a booklet for collecting feedback from students by asking them to record what they learned or liked at each session. At the final session, students were asked to answer a brief questionnaire about their satisfaction, learning, and experience (Condie & Hartl, 2012, P. 42-45). Additionally, Kids Kitchen facilitators provided a debriefing form after each session (Condie & Hartl, 2012, P. 53-54). The program also collected and documented informal feedback or comments from parents, school staff and volunteers. However, there has been no formal evaluation or following-up of participants after the program for long-term impact evaluation. The need of an evaluation of the program impacts was identified by Health Canada (2010a). There was a research gap and a need to identify short-term and long-term results of cooking programs such as Kids Kitchen to add to the evidence and inform future programs and nutrition public health policy (Health Canada, 2010b)

1.4 Purpose

The initial purpose of this research project was to explore the nutrition knowledge, skills, and behaviours of children after participating in the Kids Kitchen program (phase 1).

The recruitment of children to participate proved challenging. Thus, an additional component was added to the study (phase 2) to explore the challenges in recruiting children and parents for research studies and program initiatives, and the strategies to prevent and overcome them.

1.5 Research Questions

1.5.1 Phase 1 Questions

1. What knowledge on safe food handling, kitchen safety, and food preparation do children learn after participating in the Kids Kitchen program?
 - 1.1 How do the children use this knowledge in the home setting?
2. What food skills do children learn after participating in the Kids Kitchen program?
 - 2.1 How confident do the children feel about their food skills after participating in the program?
 - 2.2 How do children use these food skills in the home setting?
3. What involvement do children who participated in the Kids Kitchen program have in the home with regard to meal planning, food shopping, and food preparation?
 - 3.1 How did the children's involvement change as a result of participating in the program?
4. What changes occurred in the children's eating behaviour at home after participating in the Kids Kitchen program? In other family members?
5. What were/are the challenges and helps for children to apply what they learned in the Kids Kitchen program at home?
6. How do the parents/caregivers/guardians of the children who participated in the Kids Kitchen program view their child's experience in the program and their contributions at home related to food and nutrition?

1.5.2 Phase 2 Questions

1. What are the challenges in recruiting elementary students and their parents to participate in programs and evaluation/research?
 - 1.1 What are the reasons for these challenges?
2. What are the strategies and approaches to prevent or overcome these challenges?

1.7 Summary

Kids Kitchen was and continues to be an after-school nutrition education program that teaches children in grades four and five basic nutrition and food skills. The need for a program evaluation was identified. Phase 1 of this study explored the nutrition knowledge, skills, and behaviours after participating in Kids Kitchen program. Phase 2 explored the recruitment challenges that occur in the elementary school system and how these challenges can be prevented and overcome.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Childhood development theories divide the childhood period into prenatal (conception to birth), infancy and toddlerhood (birth to 2 years), early childhood (2 to 6 years), and middle childhood (6 to 11 years). The latter is also considered as the preadolescence period (Berk, 2008). In 2006, there were 4.3 million children (birth to 11 years) in Canada. Of those children, 5% were immigrants and 6% were Aboriginal (Butler-Jones, 2009). In this literature review, the focus is on the middle childhood stage (6 to 11 years old children).

Children's health and nutrition behaviours are affected by various interrelated factors. "Although children and young people themselves are of central importance, it is essential to see them in context—within their families, communities, environments, and wider social and political setting." (Blair, Stewart-Brown, Waterston, & Crowther, 2010, p. 2). This literature review discusses: (a) the characteristics of middle childhood, (b) the health status of children in Canada, (c) their nutritional issues, (d) their eating behaviours, (e) their knowledge and attitudes towards food, nutrition and cooking, (f) children's nutrition education and cooking programs evaluation, and (g) recruitment of children and their parents to programs, evaluations, and research studies in the context of the school system. A challenge in the literature review was in the inconsistency of age groups used in research and evaluation studies.

2.2 Middle Childhood Development and Characteristics

Middle childhood (6 to 11 years) is the age period that is between early childhood (preschool age stage) and adolescence. It is also known as the "juvenile phase", primary school age, or preadolescence age. This stage is characterized by mental, emotional and social independence and development (Campbell, 2011). At this stage, the physical growth is described as latent and steady, especially when compared to growth in the age periods that are before and after it (Mitchell, 2003; Samour & King, 2012). On average, in middle childhood, children's height increases two to three inches, and their weight increases by five pounds every year. Females grow faster at puberty, which usually starts before males

(Berk, 2008). In addition, there is a clear development in the gross and fine motor skills during middle childhood.

There are, however, some individual differences related to sex, socioeconomic status, and the child's environment (Berk, 2008). According to Piaget's Theory of Cognitive Development, this stage is called the concrete operational stage. Cognitively, children at this stage are able to think logically, classify, seriate, reason, process information fast, organize long-term knowledge, develop selective attention, and plan. Their language abilities and learning at school also improve (Berk, 2008). Emotional and social development in middle childhood is summarized as improvement in self-awareness, self-esteem and independence (Berk, 2008). Because of these developmental characteristics, middle childhood is considered a critical age stage.

2.3 The Health of Children in Canada

Over the years, the health of children in Canada has improved. However, there are many children living with health or social issues (Canadian Institute of Child Health, 2013). In one survey, the majority of Canadian children and their parents rated the child's health as "excellent" or "very good"; whereas very low percentages of children and their parent reported poor health status (Canadian Institute of Child Health, 2013). At the international level, however, the health of Canada's children is considered poor based on the health indicators and determinants from the Organisation for Economic Co-operation and Development (OECD) (Raphael, 2010a). Canada is ranked overall 12th among 21 OECD countries in health-related indicators and behaviours. Canada is rated the 6th in relation to material wellbeing, the 17th in behaviour and risk, and 18th in family relationships.

There are some indicators that are used to measure the health of children of Canada. These indicators were highlighted in the Chief Public Health Officer's report on the state of public health in Canada in 2009 (Butler-Jones, 2009). The indicators include children's life expectancy, birth and birth outcomes, mortality, and ill health and disease (chronic, vaccine-preventable diseases, and mental and behavioural disorders) (Butler-Jones, 2009). Canadian children are expected to live 80.8 years on average,

69.6 years of these are expected to be healthy years, while Aboriginal children's life expectancy is shorter than the average. After the first year of age up to 11 years, the first cause of death is motor vehicle accidents, and other causes of unintentional injuries, like drowning or fire. Health issues that children in Canada live with as chronic conditions are mainly asthma, diabetes, and cancer. There were about 17% of children, aged 8 to 11 years, living with asthma in the year 2000. Diabetes in children occurs as type 1, which is mainly genetic, and type 2, which is increasing in prevalence among children due to the poor dietary habits, and obesity prevalence (Butler-Jones, 2009). Mental and behavioural health issues that affect children in Canada are anxiety, attention deficit hyperactivity disorder (ADHD), conduct disorders, depressive disorders, learning disabilities, autism, Rett syndrome, and Asperger syndrome. The last three are not prevalent. Some of these mental health issues may continue to adulthood (Butler-Jones, 2009).

Children's health is determined by several factors that are interconnected. These factors include biological factors, family, community, and the child's social and physical environment (Blair et al., 2010; Butler-Jones, 2009). Children's health in Canada is strongly related and affected by the social determinants of health, which are child's family's income, education level, employment, housing, food security, and their community's available health and social services. Aboriginal status is also a determinant that affects other health determinants (Raphael, 2010b). Child poverty and health inequalities are shown to be increasing over the years (Raphael, 2010a). Health in childhood is a determinant of health in adulthood (Blair et al., 2010).

2.4 Food and Nutrition Related Issues of Children

There are some common nutritional concerns in childhood. Some of the concerns are more common or prevalent at a certain age period in childhood. These concerns include overweight and obesity, underweight and failure to thrive, iron deficiency, dental caries, food allergies and intolerances, ADHD, and Autism Spectrum Disorders (ASDs) (Mahan et al., 2012; Mitchell, 2003; Samour & King, 2012). In addition, chronic diseases and conditions such as obesity, cardiovascular diseases (CVD), osteoporosis, and diabetes originate in childhood and develop through adulthood (Mahan et al., 2012;

Mitchell, 2003; Samour & King, 2012). Many conditions can be prevented early from childhood (Mahan et al., 2012; Samour & King, 2012).

School aged children also have some behavioural nutrition-related concerns, which include food dislikes, breakfast skipping, school meals, after school snacking, taking responsibilities in food shopping and cooking (Samour & King, 2012). Those behaviours can be carried into adolescence and adulthood (Burke, 2002).

2.4.1 Nutrition Related Issues of Children in Canada

Children in Canada may face behavioural issues and conditions related to nutrition. The main issue is obesity (Butler-Jones, 2009). Despite excess energy consumption and obesity, children in Canada are not getting enough nutrients. Food access and affordability problems are related to the food choices children and their families make every day that affect children's weight and nutritional profile (Butler-Jones, 2009).

Childhood obesity is an epidemic issue in Canada and worldwide. Its rates have increased in the last decade (Butler-Jones, 2009). In Canada, about one third of children, ages 9 to 13 years old, are either overweight or obese, with a higher prevalence among Canadian boys (31.1% of boys versus 28.0% of girls), according to the data from the 2004 Canadian Community Health Survey, Cycle 2.2 (CCHS 2.2) (Health Canada, 2012). In more recent data from the Canadian Health Measures Survey (CHMS) 2009-2011, children who were overweight or obese were 32.8% in the 5 to 11 years old age range based on the World Health Organization Body Mass Index (BMI) cut-offs (Roberts, Shields, de Groh, Aziz, & Gilbert, 2012). Veugelers and Fitzgerald (2005) investigated the prevalence and risk factors of overweight and obesity in grade five students in Nova Scotia schools. They found that prevalence of overweight and obesity was higher than the national level with 32.9% overweight and 9.9% obese. More physical education classes, higher socioeconomic status, more meals eaten with the family, and lunch brought from home were associated with a lower risk of obesity in the students. The increased obesity trend is not only in BMI increase, but also in waist circumference and skin fold thickness according to data

comparison of years 1981 to 2007-2009 for all ages in Canada (Janssen, Shields, Craig, & Tremblay, 2012).

Vitamin D inadequacy is an issue in the Canadian population, due to climate factors and low food options that are high in vitamin D. The mean intake of vitamin D from food in children ages 9 to 18 years meets the adequate intake (AI), but there are percentages of children within this group who do not meet the recommended amount (Vatanparast, Calvo, Green, & Whiting, 2010). Comparing vitamin D intake in children (9 to 13 years) from the same data of CCHS 2.2 to the estimated average intake (EAR) of vitamin D shows that children are not taking enough vitamin D from food (Health Canada, 2012).

2.4.2 Nutrition Goals for Children

To achieve the goal of healthy child growth and development, children should meet their daily energy and nutrient requirements. Nutritional goals for children are determined by the child's growth rate, health conditions, physical activity, body size, and basal energy expenditure (Samour & King, 2012). Children need adequate energy, where 10-15% of it comes from protein. Children also need micronutrients to prevent deficiencies and support growth (Samour & King, 2012).

For healthy growth and development of children and to meet their nutritional needs, Eating Well with Canada's Food Guide (CFG) (Health Canada, 2007) recommends that healthy school-aged children consume food from all four food groups and limit consumption of food high in fat, sugar, and salt. Specifically, for children (ages 9 to 13 years old), CFG recommends six servings from the Vegetables and Fruit group, six servings from the Grain Products group, 3-4 servings from the Milk and Alternatives group, and 1-2 servings from the Meat and Alternatives group. By following these recommendations, healthy children should receive their energy, macro and micronutrient requirements. The dietary reference intakes (DRIs) are not considered a nutritional goal; rather they are used as guidelines for optimal nutrition and to assess inadequacy of nutrients (Samour & King, 2012).

2.4.3 Children's Eating Behaviours

The eating behaviours of children in Canada regarding CFG's food group intake, snacks, beverages, sugar, and dietary macro and micro-nutrient distribution are available from studies of analysis of the CCHS 2.2 data. Children in Canada do not consume adequate amounts of vegetables and fruit, and milk and milk products. As an example, on average, children 9 to 13 years old consume 4.5 servings of vegetables and fruit per day, and about 65% of them do not meet the minimum recommended five servings a day. More than 22% of calories intake comes from the "other food" category, which increases as children 9 to 13 years become adolescents (Garriguet, 2007). Food from "other foods" or "food to limit" category are usually foods that are high in calories, fat, sugar or sodium, and low in nutrients.

Children 9 to 13 years have most of their energy consumption at the dinner meal (about 31% of total energy intake) and at snacks or food and drinks taken between meals (about 26% of total energy intake). Most food for children is prepared at home (more than 50%), but about 20% of food comes from fast food restaurants. The lowest caloric intake is at the breakfast meal (17.5% of total energy intake) (Garriguet, 2007). Breakfast consumption is associated with better academic performance at school and general health of children, yet skipping it among children in this age is common. About 10 to 30% of American and European children skip breakfast (Rampersaud, Pereira, Girard, Adams, & Metzl, 2005). On the other hand, it is common that children consume after-school snacks, which are defined as the food or drink items that are consumed between 3:00 to 6:00 pm, but not in a meal of a lunch or dinner. In another study, Gilbert, Miller, Olson, and St-Pierre (2012) found that although fruit was a popular choice as an after-school snack, many choices were poor nutritionally such as candies, cookies, potato chips, sugar-sweetened beverages. The majority of Canadian children and adolescents consume after school snacks, which contribute to about 13% of their energy intake.

About a third of children and adolescents in Canada consume excess energy; however, the majority have their intake of carbohydrate, protein, and fat within the Acceptable Macronutrient Distribution Ranges (AMDR) (Health Canada, 2012). Children in Canada consume a slightly high

saturated fat percentage from their total energy intake compared to the recommendation. Other nutrients are consumed adequately, with the exception of vitamin A, vitamin D, phosphorus (in girls), and calcium. On the other hand, Canadian children consume high amounts of sodium that exceeds the Tolerable Upper Intake Level (UL). These findings were similar to the dietary patterns in grade four children in the United States (Vadiveloo, Zhu, & Quatromoni, 2009).

From the same CCHS 2.2, children and adolescents in Canada consume about 20% of their energy intake from beverages, where the consumption of milk is reduced, and the consumption of soft drinks and fruit drinks is increased with the increase in age (Garriguet, 2008). Sugar makes about 25% of energy intake in children 9 to 13 years old. This sugar comes from different sources of naturally occurring sugar and added sugar. The highest proportion comes from the “other foods” category (Langlois & Garriguet, 2011).

In a study to identify intake from food groups in relation to childhood obesity in Canada, researchers compared two groups (obese and non-obese) of children’s diet histories (Gillis & Bar-Or, 2003). They found that children in both groups were not consuming the recommended servings, especially from vegetables and fruit, and milk and milk products, and they were consuming food outside of Canada’s Food Guide for Healthy Eating (i.e. other foods). They were also consuming extra servings of Meat and Alternatives group. It was significant that children with obesity consumed higher amounts of Meat and Alternatives, Grain Products, sugar-sweetened beverages, and snack foods like potato chips. They also consumed non-homemade food more often.

2.4.3.1 Factors Influencing Eating Behaviours

Children’s eating behaviours and patterns are affected by several factors and by the interaction between these factors. At school age, these factors include the child’s family, trends in society, media, peer influence, disease or health conditions of children (Mahan et al., 2012), poverty (and other social determinants of health), nutritional knowledge (Mitchell, 2003), body image (Samour & King, 2012), and physical or sedentary activities (Thivel, Aucouturier, Doucet, Saunders, & Chaput, 2013). In a Canadian

review article that investigated the determinants of healthy eating in children and youth, reviewers divided the determinants of eating behaviours into two categories: individual and collective determinants. The individual determinants included age and sex, food likes and dislikes, and nutritional knowledge and attitudes. The collective determinants included economic and social factors, the physical environment in which the children spent their time (e.g. schools) (Taylor, Evers, & McKenna, 2005), and the integration between what was taught about healthy eating and what was available to students (Burke, 2002). Factors affecting children's food choices were also researched by Atik and Ertekin (2013). Factors were: taste of the food, fun associated with it, self-image and its relation to food, rationale for food choice, "forbidden food", social influences in the family, school and teachers, peers, media, and socio-economic status (Atik & Ertekin, 2013).

A systematic review of 26 articles studying the relationship between the community and consumer environment and the diets of children under 18 years old, found that there was a moderately strong evidence of effect (Engler-Stringer, Le, Gerrard, & Muhajarine, 2014). Studies were mostly cross-sectional with two longitudinal studies. They were inconsistent in the methods and in what was measured in terms of dietary intake (fruit and vegetables intake, different food group intake, sugar sweetened beverages intake, fast food intake, diet quality, and food purchasing behaviours) and the food outlets in the home or school environment of accessibility and availability to them or to certain food items such as fruit and vegetables (Engler-Stringer et al., 2014).

Food preferences in children are one of the determinants of children's eating behaviours. These preferences are determined by factors that also interact with and shape children's eating behaviours: 1) children's biology of genes and their interaction with the environment affect their choices, 2) factors related to parents: parenting style and practices, especially the ones related to food, parents' knowledge of food and nutrition, and the parents' awareness of their child's weight status (Scaglioni, Arrizza, Vecchi, & Tedeschi, 2011), and 3) media, by its different channels, also plays a role in shaping food preferences. Media affects children and parents. As an illustration, media channels such as television, magazines, and

books contain messages of persuading parents to hide vegetables in food, so children consume them. Lynch (2011) argues that this approach is interfering with children's ability to learn and develop a preference for these foods. Food preference and intake relationship was also studied in girls 5 to 11 years (Rollins, Loken, & Birch, 2011). Findings from this study showed that there was a positive relationship between food preferences and food choices girls make. However, this relationship weakened as girls in preadolescence age became concerned about their weight, or girls with history of high body weight or body fat percentage.

Parental and family influence on children's eating behaviour was highlighted in several studies. Parents are usually the ones who choose the family food, act as a model of eating and food choices for their children, and choose strategies to regulate feeding of their children. Their feeding style is influenced by their child characteristics as well (Birch, Savage, & Ventura, 2007). Parents' nutritional knowledge influences children's eating (Yabancı, Kısaç, & Karakuş, 2014); however, parenting styles of restricting some types of food and pressuring other types creates an adverse effect in the development of healthy eating behaviours in children (Scaglioni, Salvioni, & Galimberti, 2008). How parents cope with different life challenges can also affect food choices of children (Ray, Suominen, & Roos, 2009). Parents' work also influences food intake by affecting meal preparation and family meal time quality (Fulkerson et al., 2011). Family eating settings of when, where, and how eating happens in the home also has an effect on children's eating behaviours (Kime, 2008).

2.4.4 Children's Knowledge and Attitudes on Food, Nutrition, and Cooking

Views of children about food and their understanding of nutrition and cooking play a role in determining their eating behaviour. These views come from knowledge and attitudes children gain from their environments: home, school, and other surroundings. Children's understanding of food and nutrition could start from an early stage, even before school age. According to Piaget's Theory of Cognitive Development and its relation to nutrition understanding in children, the child understands the importance of food for health and growth between ages of 7 to 11, but with little understanding of the reasons and the

ways to achieve it (Mahan et al., 2012). School aged children's knowledge and attitudes of healthy eating and nutrition messages were studied from ages 4 to 11 in different studies. These studies investigated children's perceptions of healthy eating (Atik & Ertekin, 2013; Hesketh, Waters, Green, Salmon, & Williams, 2005; Protudjer, Marchessault, Kozyrskyj, & Becker, 2010), their perceptions of nutrition messages (Lytle et al., 1997) and nutrition claims (Soldavini, Crawford, & Ritchie, 2012), their views on cooking and food preparation (Caraher, Baker, & Burns, 2004), and their understanding of the relation of food to health (Achterberg, Shannon, & Singleton, 1992).

Most of the children's perceptions of food come from conflicting messages, which could make it challenging for them to make a healthy choice (Atik & Ertekin, 2013; Burke, 2002; Hesketh et al., 2005; Protudjer et al., 2010). A qualitative study using one-on-one interviews with children investigated the perception of children (11 to 12 years) on healthy food and physical activity (Protudjer et al., 2010). Most children identified healthy eating and physical activity as part of being healthy (75%); however, they perceived healthy eating as being harder to achieve than physical activity. Healthy food was linked to obligation, whereas junk food was linked to joy and social activities. These perceptions were related to cultural pressure and disconnection between what was being taught to children and what surrounded them in social contexts. These findings were similar to the findings of Hesketh et al. (2005), who conducted focus groups with 119 children in grades two and grade five and 17 parents asking about barriers to healthy eating and physical activity. They found that children had the knowledge of what is healthy, but there was some confusion due to the conflicting messages that children were exposed to in nutrition around fat, meat, and other topics.

Children are able to link healthy eating behaviours to being healthy. Achterberg et al. (1992) interviewed 60 children aged 4 to 7 years in a pre- and post-test to measure the relationship of food to health after home-based nutrition education. Most of the children (95%) linked food to health in both the control and intervention groups, and the most frequent response for the meaning of healthy was to eat healthy food. Children in the intervention group used words such as fat, energy, strong heart, and strong

bones. This study showed the ability of children in learning health and nutrition concepts at an early age; however, the study population was limited to a Caucasian, middle income group.

Soldavini et al. (2012) argues that children had special interpretations of nutrition messages and nutrition claims, which affected their food choice. They found that children ages 9 to 11 years tended to choose and preferred the taste of the food product that had a nutrition claim: reduced fat, whole grain, and 100% fruit juice.

Children are often observers or participants in cooking and food preparation activities. Caraher et al. (2004) studied children's (8 to 9 years old) views on cooking and food preparation by a draw and write method in three different schools in the United Kingdom. Culture and food was highlighted by children's drawings and perception of a traditional dish or proper meal. Fast food environment, family and media shaped many children's views on food and cooking.

Usually the knowledge and skills of cooking are passed from mothers to children (Engler-Stringer, 2010; Health Canada, 2010b; Lavelle et al., 2016; Wolfson, Frattaroli, Bleich, Smith, & Teret, 2017), or other family members (Wolfson et al., 2017). Due to the reduction in food skills of adults, mothers may not be the source of teaching cooking skills to their children (Health Canada, 2010b). Cooking education is important to be given to children at an early age (Lavelle et al., 2016). There is also a support by a wide range of people of teaching cooking at schools through well-designed cooking curriculum (Wolfson et al., 2017).

A Canadian study by Slater and Mudryj (2016) that was based on the CCHS-2013 showed that about two thirds of children above 12 years of age participated in food-related activities. Those activities included choosing meals, and grocery shopping. One third helped with actual food preparation and cooking in their homes. Household demographic factors had an effect on its children's participation in meal preparations. Children living in a household of married or widowed, separated or divorced, or single parents are more likely to be involved with food-related activities. Aboriginal and immigrant families'

children were also more involved in grocery shopping. There were some differences among the different regions of the country.

According to Health Canada (2010b), families nowadays depend more on pre-packaged meals that may require assembly or minimum preparation. This practice has become the “norm” for food choices. The current situation of reduction of cooking and food preparation skills is viewed as either a transition in the food skills or cooking deskilling. Cooking and food preparation skills among children, youth, and their families from all socioeconomic groups have been influenced by the changes in the food system and policies, social, cultural, and environmental factors.

If homes and schools do not transfer cooking and food preparation skills to children and youth, they would less likely gain the confidence to use these skills later in life, which will influence their food choices in the future (Health Canada, 2010b).

2.4.5 Food and Nutrition Education for Children

Based on school aged children’s cognitive and social development, children are able to learn about food and healthy nutrition. It is important to understand the cognitive, emotional and social characteristics of children to design programs that have maximum benefit (Contento, 2007). In the United Kingdom, the Food Standards Agency outlined food competencies for children and youth based on age group classifications. The food competencies included themes of diet and health, consumer awareness, cooking, and food safety based on research evidence (Food Standards Agency, 2010).

In Canada, each province has its own school curriculum and programs that address food, nutrition, and health. These programs may also vary in different school districts or health regions. However, they all have common themes. In Saskatchewan schools, for example, nutrition and food skills are usually taught in Health Education curriculum (K to 10) or in Practical and Applied Arts that includes Home Economics and Hospitality, which has Food Studies as part of it (given after grade 9) (Saskatchewan Curriculum, n.d.). The Public Health Nutritionists of Saskatchewan developed an outline

and resources list for teachers and educators to meet the health education curriculum goals with the nutrition education concepts (Public Health Nutritionists of Saskatchewan, n.d.). Nutrition education for grade four concepts and resources were suggested to meet each of the three goals. The goals were:

1. “Develop the understanding, skills, and confidences necessary to take action to improve health
2. Make informed decisions based on health-related knowledge
3. Apply decisions that will improve personal health and/or the health of others” (Public Health Nutritionists of Saskatchewan, n.d., p. 2-9).

The need for food and nutrition education comes from poor eating habits and the prevalence of nutritional issues such as obesity. The effectiveness of behaviour change resulting from nutrition education programs is still questionable. According to Berk (2008), health education has a small impact on children’s behaviour. because 1) health is not a priority to children, 2) their perspective of time is different from adults’ regarding disease prevention, and 3) they receive and observe conflicting messages and behaviours-from different sources.

Nutrition education occurs at a variety of levels and takes different approaches. It provides information, facilitates behaviour change, and focuses on environmental change (Contento, 2007). A health promoting approach for children in schools that uses nutrition education is the comprehensive school health approach (CSH) (Veugelers & Schwartz, 2010). This approach is used worldwide and in Canadian schools to promote health in schools through education, school physical and social environment, policies, and partnerships. This approach promotes healthy eating and physical activity at schools. There has been no rigorous evaluation of program impacts and outcomes in schools using the comprehensive school health approach (Veugelers & Schwartz, 2010).

A nutrition education program evaluation assesses different indicators to measure program effectiveness in achieving its goals. Many of the nutrition education programs for school-aged children are based on the Social Cognitive Theory (Contento, Randell, & Basch, 2002), which creates an

evaluation framework and indicators for the programs. These indicators evaluate knowledge, attitude, and behaviour or skills attained from the nutrition education program. Psychosocial variables in relation to behaviours are also evaluated in children. Physiologic indicators are used as a measurement of behavioural change in children (Contento et al., 2002). Knowledge and self-efficacy are common measurement indicators of a program's effectiveness in children (Hernandez-Garbanzo, Brosh, Serrano, Cason, & Bhattarai, 2013).

Fruit and vegetables intake has been used as an indicator of nutrition education programs evaluation because of their role in disease prevention and low intake in children. "High 5" is an example of a multifaceted program that aimed to increase fruit and vegetable intake among children in grade four in the United States (Reynolds et al., 2000). Evaluation of the High 5 program effectiveness was conducted in terms of fruit and vegetable consumption, the consumption of a generally healthy diet, and psychosocial variables of children and their parents at one and two years assessment points. The study found that participants of the program who had increased servings of fruit and vegetables had better nutrient profiles, and scored higher in the psychosocial test. However, the program showed a stronger effect on children rather than their parents (Reynolds et al., 2000).

A systematic review and meta-analysis study analyzed nutrition education and promotion intervention evaluation literature for effects on fruit and vegetable consumption (Delgado-Noguera, Tort, Martinez-Zapata, & Bonfill, 2011). The analyzed interventions included programs offering free or subsidized fruit and vegetables, computer-based programs, and multicomponent interventions. The meta-analysis found that computer-based nutrition education programs were effective, whereas programs offering free or subsidized fruit and vegetables, and multicomponent interventions were not effective in increasing fruit and vegetables consumption (Delgado-Noguera et al., 2011). Cullen and colleagues (2007) evaluated the effects of a computer-based program called Square's Quest! on children's fruit and vegetables consumption. This program had grade four students set goals for making recipes with fruit and vegetables. Fruit and vegetables consumption increased, especially in students who consumed higher fruit

and vegetables before the intervention. Additionally, goal setting was found to be a useful strategy to be used with children.

2.4.5.1 Cooking Programs for Children

Hands-on nutrition education has been shown to be an effective way to change children's nutrition knowledge, attitude, and behaviour (Contento, 2007; Diker, Walters, Cunningham-Sabo, & Baker, 2011; Drummond, 2010). Cooking skills and cooking confidence are best retained when learned in childhood and early adolescence (Lavelle et al., 2016). Cooking, cooking and tasting, and cooking and gardening programs are examples of possible programs. Other authors suggest that the knowledge and skills of food, nutrition, and food preparation and cooking skills in the complex food system be expressed as or included in food literacy (Cullen, Hatch, Martin, Higgins, & Sheppard, 2015) or food skills (Region of Waterloo Public Health, 2015). Health Canada identified that there is a need for interventions to improve food and cooking skills for children and families (Health Canada, 2010b).

Evaluations of different cooking programs have shown positive results in improving children's food and nutrition knowledge and attitudes (Cunningham-Sabo & Lohse, 2014; Diker et al., 2011; Lukas & Cunningham-Sabo, 2011). However, it is unclear how the knowledge and behaviour change is sustained with time (Health Canada, 2010b). A systematic review of four studies on school-based cooking programs showed that the programs resulted in positive outcomes in knowledge, food choices, and dietary changes, but they were limited by the unavailability of long-term data (Caraher, Wu, & Seeley, 2010). Health Canada (2010b) describes cooking programs for children with parents with specific features including: 1) having a theoretical background, 2) being learner centered, 3) being focused on healthy eating and food skills, 4) including hands-on learning opportunities for participants, 5) actively involving parents in the implementation or evaluation of the program, and 6) helping reduce barriers to learning.

Markow, Coveney, and Booth (2012) reviewed 11 studies of school-based cooking programs. Results of self-efficacy in cooking, learned cooking skills, knowledge of food preparation, confidence in cooking, cooking at home, and sharing of cooking skills were mostly positive. They demonstrated success

in achieving outcomes despite the variations and limitations in methods used. The factors that helped in achieving positive outcomes were integrating the cooking classes into the curriculum, flexibility of the program to fit schools, the use of hands-on experiential learning, having adequate program staff, including sense of fun and enjoyment to participants, and adequate program funding. Factors that hindered a cooking program were limited time for cooking activities, discontinuing of the program for long-term behaviour change, teachers not adopting a program despite receiving training, inadequate resources or unavailable facilities (i.e. kitchen), and inadequate funding.

A systematic review of eight studies (between 2003 and 2014) by Hersch, Perdue, Ambroz, and Boucher (2014) examined the relationship between cooking programs for school-aged children and their food preferences, attitudes, and behaviours. The reviewed studies varied in the length of intervention, measured outcomes, method of data collection, and the quality of the studies. The review concluded that cooking programs resulted in positive outcomes in terms of food preferences, attitudes towards healthy eating and cooking, and eating behaviours. The studies found that the cooking confidence of participants, their preference and consumption of milk, vegetables and fruits, and their dietary fibre intake all increased. They also found that weight was reduced in overweight participants. The best intervention practice was challenging to identify, due to the great variation among the reviewed studies. Long-term effects of the programs were also unknown.

There are many examples of cooking programs that are designed for children to teach them the knowledge and skills of food, nutrition, with or without hands-on cooking activities. Cooking With Kids (CWK) program, with its two components of cooking and tasting, was a nutrition education program that taught elementary school children cooking skills and food and nutrition knowledge. It teaches cooking and food tasting by integrating them with academic subjects such as math (through recipe doubling or tripling) and social studies (through different countries and cultural foods) (Walters & Stacey, 2009). Mixed methods using an online survey and one-on-one interviews with teachers who purchased the curriculum were used to evaluate the curriculum material of the CWK program using the variables of

Diffusion of Innovation theory (relative advantage, compatibility, complexity, trialability, and observability) to understand the facilitators and obstacles of the curriculum use (Diker et al., 2011). This research found that the CWK curriculum was hands-on, age-appropriate, culturally-adapted, and easy to use. The barrier of implementation was mostly lack of resources and teacher's cooking comfort level (Diker et al., 2011). Lukas and Cunningham-Sabo (2011) used focus groups to test the Social Cognitive Theory components in the CWK program outcomes. The focus groups were conducted with grade four students, teachers, and food educators. The CWK program changed the attitude of students towards cooking and trying new foods; however, they were not likely to use their learned skills at home as they preferred cooking with friends. One of the clearest positive effects was when CWK was given in combination to other school subjects such as math, social studies, and language arts. From the pre- and post-test quasi-experimental evaluation study, the CWK program had a significant effect on male grade four students' cooking skills who had no pre-program cooking experience. It also increased their vegetables and fruits preferences (Cunningham-Sabo & Lohse, 2014).

Health Canada (2010a) showcased 13 Canadian and two international (from Australia and the United Kingdom) cooking and food preparation programs for children that were promising or successful. Those programs were described as case studies for the lessons learned and for informing policy (Health Canada, 2010a; Health Canada, 2010b). One of these programs, *Petits cuistots – parents en réseaux* (Little Cooks – Parental Networks) based in Montreal, Quebec, was documented in an evaluation study. Bisset, Potvin, Daniel, and Paquette (2008) studied the nutrition and cooking knowledge, attitude, capacity and experience of participants, and the parents' participation in school activities. The study compared grade five participant students with grade six non-participants. It found that participants of the program had better knowledge in food and nutrition, were more willing to try new foods, and had better cooking skills than non-participants. Among participants, girls were more able to link cooking skills to healthy eating than boys. The parents of the program participants were more involved in school activities compared to non-participants (Bisset et al., 2008).

Cooking and gardening programs achieve positive impacts on children's nutritional knowledge, dietary preferences and intake, and health. LA Sprouts program was a 12-week program for children (12 to 16 years old) shown to increase fibre intake, reduce blood pressure, and reduce body mass index in overweight and obese participants (Davis, Ventura, Cook, Gyllenhammer, & Gatto, 2011). Cooking and garden nutrition education program also improved fruit and vegetables preference among children, but there were no results of increased fruit and vegetables intake (Jaenke et al., 2012; Morgan et al., 2010). Jaenke et al. (2012) argued that the increase in fruit and vegetables consumption may happen at the long term. Similar results were shown in a mixed methods study for another cooking and garden program for children, which showed preference of fruit and vegetables, but not an increase in intake (Gibbs et al. 2013). Similar findings were shown in another qualitative evaluation of an after-school program in the United Kingdom (Hyland, Stacy, Adamson, & Moynihan, 2005).

2.4.5.2 Access to Children for Programs or Research Studies Recruitment

School-age children are often accessed through their schools to be part of programs and/or research studies. Program providers and researchers recruit children and their parents or guardians mostly through their schools (Sacheck et al., 2015; Smith & Petosa, 2016). Lotrean, Popa, Santillan, and Florea (2014) listed the advantages and challenges of recruiting children participants in schools versus other settings to conduct lifestyle research. Accessing children through schools (versus other places) has advantages that include 1) access to a wide range of school-aged children, 2) observing children's lifestyle during their school day (e.g. physical activity and nutrition), and 3) schools provide more chances for children to be part of research activities. On the other hand, the challenges of accessing children through schools include 1) the multiple layers of access in schools from school administrations and parents' consent, 2) priorities of schools, 3) pressure at the school environment (from teachers or peers), 4) school-year calendar and children turnover every year, and 4) time limitations with other school activities.

The process of access to children differs from one school district to another and may differ from school to school in the same district (Harrell, Bradley, Dennis, Frauman, & Criswell, 2000). A school districts' board and administration along with parents are described as gatekeepers of children (Alibali & Nathan, 2010; Berry et al., 2013; Kennan, Fives, & Canavan, 2012; Lotrean et al., 2014). The access process can be a multiple layer formal process, or it can be done through the individual school principal or teachers (Cline, Schafer-Kalkhoff, Strickland, & Hamann, 2005; Harrell et al., 2000; Harrington et al., 1997; Sacheck et al., 2015). There are some factors to consider prior to accessing and conducting research at school. These factors include: “(a) school philosophy; (b) institutional review board requirements and permissions; (c) student privacy, rights, and protection; (d) differing power structures; (e) varied school schedules; (f) transportation; and (g) school district policy.” (White, 2012, p. 75).

Policies and procedures are usually put in place for external researchers, program providers, and program evaluators by school district boards or individual schools for access and ethics maintenance. For example, in Saskatoon, where this research was conducted, there are two main school boards: the Saskatoon Public Schools and the Greater Saskatoon Catholic Schools (GSCS). Saskatoon Public Schools states in their Administrative Procedures Manual the policies and procedures for external providers involvement in schools (2016) and for research studies (2010) in their schools. For external program providers from a public agency, staff are directed to the superintendent with responsibility for Student Support Services (Saskatoon Public Schools, 2016). The research application materials are submitted to the Coordinator of Research and Measurement at the school board (Saskatoon Public Schools, 2010). For GSCS, in their School and Community Relations policy for internal and external research, all research project proposals are submitted to the Superintendent of Education responsible for research (Greater Saskatoon Catholic Schools, 2015).

In the research literature, researchers described access to children as a process that involves multi-levels of access. It mostly starts from the superintendent at the school board of the district, individual school principals and staff, or classroom teachers. Berry et al. (2013) had two meetings with

two superintendents at the proposal and the beginning of their study to access their school districts.

School principals were then contacted, and the research team met with them. Harrington et al. (1997) and Esbensen, Melde, Taylor, and Peterson (2008) accessed schools at multiple levels: district, school principal, classroom teacher, and parents.

Accessing children in schools can be a challenging process as it requires multiple access points. Reaching out to principals and school staff who may have influence at schools are considered key in obtaining school access (Berry et al., 2013; Harrell et al., 2000). Key people at schools may also help with potential issues as they arise (Alibali & Nathan, 2010). Esbensen et al. (2008) found that a principal's or school administrator's role is considered proactive in the participation consent process. According to Befort et al. (2008), who qualitatively investigated the perspective of superintendents and principals from elementary, middle and high school identified six main themes. Themes were: 1) benefit to schools that are not monetary incentives (e.g. new data or learning), 2) consistency with the schools' mission of meeting academic excellence, 3) not spending long time or causing a burden, 4) time of year choice, 5) topic of research and its credibility, and 6) the impression on previous research experience. Researchers should understand and address school administration concerns and make the right choices of time and communication to reduce barriers and disagreement of schools to be part of research.

Access to children may become more challenging if these children are in populations that are "hard to reach" or could be considered "at risk". An example from Kennan et al. (2012) is about the population of young carers (ages 5 to 17) in Ireland. This population was described as invisible, which adds to the challenge of accessing them in recruitment efforts. Children from low income families can also be a challenge to recruit (Schnirer & Stack-Cutler, 2012).

Accessing children for research or program participation also requires obtaining parental consent. Obtaining consent from parents and assent from children comes after the schools' approval of the research study or program. The consent process may pose another challenge to accessing and recruiting children to research and programs as parents are considered another "gatekeeper" (Fletcher & Hunter,

2003). Active parental consent is when a parent gives permission for their child to be part of a research study or a program by signing the consent form. Passive parental consent is when information about a project or a program is sent to parents with the assumption of their permission except if they refuse their child's participation (Range, Embry, & MacLeod, 2001). Usually passive consent results in high rates of participation that are greater than 80%. On the other hand, active consent results in lower participation rates (Esbensen et al., 2008). Factors that affect returned consent forms by children are: child sex, number of parents, educational level of parents and their ethnic background, and children behaviour. Female children who live with two parents that have high educational level, do not belong to a minority group, and who are not involved in a risky behaviour (e.g. smoking) are more likely to return signed consent forms from home (Esbensen et al., 2008).

When parents are involved with the school, a student's school experience is improved in terms of academic learning and participation in programs and activities. (Anderson & Minke, 2007; John-Akinola & Nic Gabhainn, 2014). Parental participation or involvement (in their children's school) is defined as "a broad set of activities where schools make it possible for parents to take an active role in the life of the school and parents volunteer to take part in school activities and events." (John-Akinola, & Nic Gabhainn, 2014; p. 379). Parents' versus teachers' perception of parental involvement differs (Anderson & Minke, 2007). According to Lawson (2003), parents and teachers had a totally different conception of what parental involvement meant. Sometimes, it is a challenge to have parents involved in schools due to reasons of busy schedules or language barriers (John-Akinola, & Nic Gabhainn, 2014). The socioeconomic challenges that some families face can also be a barrier to parental involvement (Lawson & Alameda-Lawson, 2012).

Parents make the decision to give the consent for their children's participation. The parental decision to be involved in school is explained in the model by Walker, Wilkins, Dallaire, Sandler, and Hoover-Dempsey (2005) (Figure 2.1). The two levels include the parental decision to be involved in the schools and their form of involvement, which are both related to parental decision making (Anderson &

Minke, 2007). The parents' decision to be involved in their child(ren) school is determined by the following factors: 1) motivational beliefs that include: construction of parents' role, self-efficacy to help their children in school, 2) perceptions of invitation and where it came from, and 3) self-perceived time, energy, knowledge and skills (Figure 2.1).

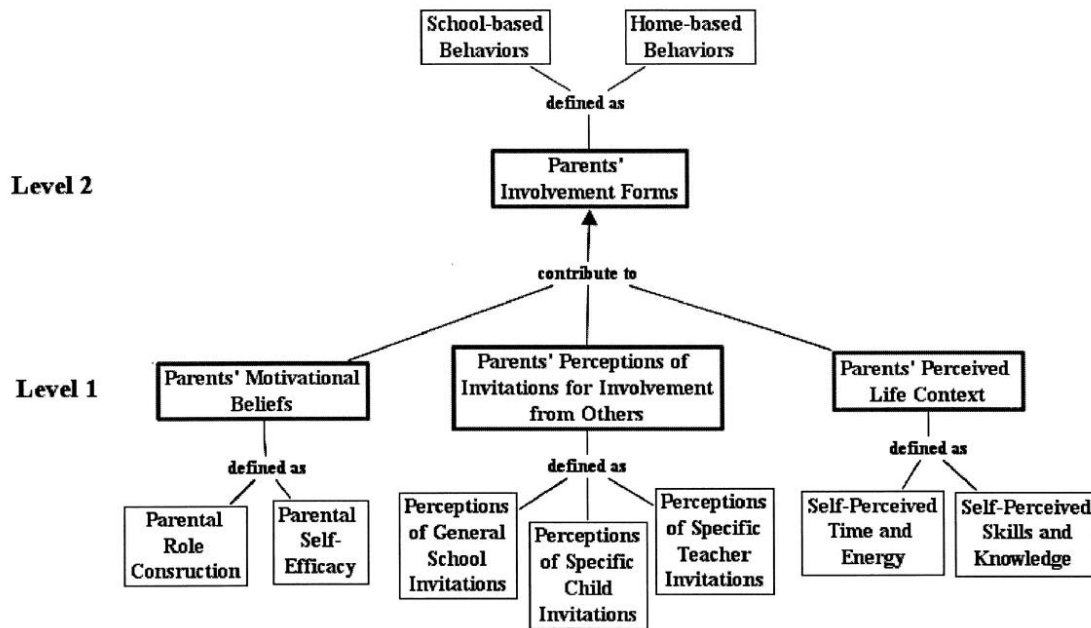


Figure 2.1 Levels 1 and 2 of revised Parental Involvement in Children Education Model. Adapted from: Walker, Wilkins, Dallaire, Sandler, & Hoover-Dempsey (2005).

Communication between schools and parents is an ongoing process. It helps with parental involvement in school, children's learning, and other school events. Graham-Clay (2005) described communication between schools and parents. It starts from the welcoming school environment, smiles, and the cleanliness of the school. This communication can be one-way such as written communication through newsletters, notebooks, and report cards that use simple and respectful language. It also can be a two-way communication such as regular phone calls, parent-teacher conference, and email communications. School-parent communication is challenged by the negative perception or negative experiences of parents on schools, not acknowledging cultural and individual differences, and the limitation of time and resources. Phone calls before meeting parents in person alone were not helpful as a

way of communication that resulted in successful recruitment (Cline et al., 2005). Therefore, being proactive in communication and encouragement of parent input by school administration and teachers is key to reduce communication challenges (Graham-Clay, 2005).

Trust between school and parents is key to improve school-home connections. It is built on number of relations that are between “teachers with students, teachers with other teachers, teachers with parents, and all groups with the school principal” (Bryk, & Schneider, 2003, p. 41). Trust is fostered by respect between all parties, personal regard that is shown through extending schools’ role by reaching out to parents, competence in roles, and integrity. This trust is not built by one event or activity, rather it is built by the daily interactions (Bryk, & Schneider, 2003).

2.4.5.3 Factors Affecting Recruitment

There are several factors that affect people’s recruitment and retention in research. These factors are participant, environmental, contextual, and research-related (Gul & Ali, 2010). The participant-related factors are gender, income, education, and age. Individuals with low income and low education are less likely to participate. Context of culture and policies in the communities also affect people’s willingness to take part in research studies. Research-related factors are “difficulties, demands and discomforts associated with research design”. (Gul & Ali, 2010, p. 229). For example, Bender et al. (2011) in their evaluation of an after-school program found that social support by teachers, parental involvement, and peers’ influence are factors in recruitment. Some of these factors may create barriers or bias in recruiting children and their parents. In a focus group, children expressed their motivation in participating in nutrition research as coming from the perceived benefits of the study such as receiving a gift card incentive and having a health testing. The latter was perceived as a benefit and a barrier at the same time (Kafka, Economos, Foltz, & Satchek, 2011).

Frye, Baxter, Thompson, and Guinn (2002) found that classroom was the significant factor ($p < 0.04$) affecting students’ agreement to being part of research among other factors, which were school, ethnicity, and gender. Classroom participation as a factor might be influenced by the teacher, peers,

socioeconomics, differences in educational achievement among students, incentives used in recruitment, and other factors that were not measured in the study (Frye et al., 2002).

2.4.5.4 Challenges of Recruitment of Children and Their Parents in the School System

Accessing and recruiting children or their parents in the school system can cause challenges, especially for external researchers and program providers. Research in schools reported or studied these challenges. The challenge starts from the access step and the multi-level recruitment and how each level's willingness to promote the program or research to parents and students. On the superintendent level (the school district level) in evaluation research for example, "superintendents may be concerned that the evaluation may cast the district in a negative light, be the source of complaints, result in negative publicity for the district, and criticism for manner in which they are dealing with the issue" (Young, Denny, & Donnelly, 2012, p. 529). Principals may see it in a similar way as superintendents, and they may also see it as a way that takes from the academic day activities. Teachers may view it as a way of judging their teaching. Parents may see it as a way to invade their privacy, or it could encourage children to participate in some unhealthy behaviours when they are asked about it. Children may see it as a waste of time (Young et al., 2012). These can be potential challenges for conducting evaluation studies at schools. When teachers, for example, are new or minimally involved, it creates a barrier of returning consent forms by students (Fletcher & Hunter, 2003).

In some cases, recruitment is challenged by the background and condition of families of children such as ethnicity in minorities, low socioeconomic status, mistrust of research, or misunderstanding of the consent form (Harrington et al., 1997). Minorities and low socioeconomic status families are less likely to return consent forms (Fletcher & Hunter, 2003). Recruitment of minority groups is challenged by some study designs that have interventions, mistrust of research, government, or educational institutions, level of involvement with the communities, logistical issues and incentive providing, and cultural adaptation (Yancey, Ortega, & Kumanyika, 2006).

Recruiting parents to be part of programs or research can be another challenge besides recruiting children. In a parents' physical activity course, semi-structured interviews found that availability and accessibility to childcare was a barrier to participation (Jago et al., 2012). In another program recruiting low socioeconomic status families, parents had concerns with privacy invasion and issues of time conflicts that prevented them from participating (Cline et al., 2005; Heinrichs, Bertram, Kuschel, & Hahlweg, 2005).

2.4.5.5 Strategies to Prevent or Overcome Recruitment Challenges in the School System

Strategies need to be in place to help in the recruitment effort. Generally, in the recruitment process, researchers need to be patient and flexible (Alibali & Nathan, 2010), especially in the steps of obtaining access and consent (Harrel et al., 2000). Determining a clear recruitment and retention plan at the initial stages of research is critical according to Berry et al. (2013). White (2012) summarized the lessons learned in conducting an after-school intervention study into three main categories: important relationships, communication, and timing.

Knowledge of the school system and the school environment is one of the main strategies for recruitment in schools. This includes being aware of the timing of the school calendar and events, so research is conducted in an appropriate time for schools and students (White, 2012).

Building relationships with schools is another strategy. These relationships can be built by attending meetings at schools, volunteering at school, and familiarizing oneself with schools' policy and website (White, 2012). Identifying and involving a person or more to be the go-to person(s) in the school is suggested in several studies (Berry et al., 2013; Esbensen et al., 2008; White, 2012). This person will help with the recruitment and research logistics. As per Berry et al. (2013), school staff were a big supporter of distributing recruitment materials and encouraging children to discuss the study with their parents and return the consent form back if they were interested in participation. Supporting school staff or teachers with tools and encouragements to provide help in recruitment by the researchers was suggested in the teachers' survey in Harrington et al. (1997). Bender et al. (2011) and Cline et al. (2005)

also indicated that valuing of staff's or teachers' role in the research project makes them value the study and becoming more interested in helping. Incenting staff and teachers with monetary incentives or appreciation meals also helps in children recruitment efforts (e.g. consent form returns to school) and feedback receiving from staff and teacher (Cline et al., 2005; Esbensen et al., 2008). It is better to involve school staff or teachers as early as the recruitment planning begins rather than later when issues arise (Smith & Petosa, 2016).

Building relationships with parents is also an important strategy. Researchers suggested that researchers meet with parents at schools to build relationship with them and answer their questions (Cline et al., 2005; Geller et al., 2007). Building relationships and trust takes time and involves several steps, especially with vulnerable populations (Berry et al., 2013). Partnerships between institutions and the community leaders and influencers is key to help recruitment and improve participation.

Another recruitment strategy is communicating the study clearly to schools explaining the problem, the study significance, methods, benefits and risks, and the requirements from the school (e.g. room) (White, 2012). Berry et al. (2013) gave a 10-minute presentation and a handout explaining the study and the benefits to school principals. In a teachers' survey in Harrington et al. (1997), teachers suggested presenting the proposed research study in clear details to have a better understanding of it. Attractive communication materials such as brochures, letters, and posters to students from diverse cultural backgrounds, where information is presented in a concise format with simple language can be a way to communicate with students and their families (Berry et al., 2013). Designing and presenting multiple clear, attractive recruitment materials to recruit schools and students helps (Drews et al., 2009). The materials designed by Berry et al. (2013) was written at a grade two reading level and was described as culturally sensitive. Sacheck et al., 2015 also suggest the design of cultural sensitive recruitment materials. Explanation of benefits of the study to the children and their parents were also emphasized in the recruitment materials (Berry et al., 2013). Researchers started by presenting the study to the children at school giving a short presentation and sending an interest form home with them. They also found that

meeting personally with potential participants was an effective way in recruitment. In addition, researchers used the continuous reminder through phone calls to explain the program or research and to answer parents' questions (Harrington et al., 1997).

Haack, Gerdes, Cruz, and Schneider (2012) examined the barriers of Latinos' participation in research. They developed a postcard recruitment that was culturally modified including concepts of collectivism and family value, and used Spanish language. Only 4% of the postcards sent were returned. Researchers found that what attracted parents to allow children to participate was the benefits provided to the community and the face-to-face recruitment strategy. The face-to-face meeting was conducted by researchers through having a table at the school at parents meeting days. However, participants who were recruited through the face-to-face strategy were more fluent in English and more integrated into the community. The question of having better inclusion of minorities recruitment was raised. collaborations between school leaders, social research, and community-based organization with their resources are helpful in increasing involvement of minority families coming from low socioeconomic neighbourhoods (Lawson & Alameda-Lawson, 2012).

To increase the parental consent forms that are returned to school for participation of children, some strategies can be put in place. These strategies do not rely on students to bring forms home and return them to school. Rather they can be sent directly to parents through the mail and the following up process can be supported by teachers or school administrators (Esbensen et al., 2008) or consent forms can be distributed to parents directly in a meeting with them (Stein et al., 2007). Incentives are also suggested to be provided to students and to teachers when consent forms are returned (Esbensen et al., 2008). Questions and answers were also allowed during consent process (Berry et al., 2013).

In a study examining the district, school, and classroom level effect on receiving consent forms back from parents, Esbensen et al. (2008) studied the difference through an evaluation of a school-based program that involved seven cities, 29 schools, 186 classrooms, and 4,653 students. Teachers had a role in collecting consent forms from students and a small incentive (\$2 per returned form) was given to them

plus another monetary incentive was provided based on the percentage of class student's participation. Students also received an incentive of a small gift if they returned consent forms in a short time. Teachers were also contacted by the researchers regularly to check-in with them regarding the consent return process. As for results, 90% of students returned the consent forms with 79% agreeing to be part of the study, and only 11% were not interested in participating with a variation of participation on city, school, and classroom levels. The variation in the results was explained based on the diversity of student populations in terms of ethnicity and risk, school-size, income level, and student to teacher ratio, and classroom teacher buy-in of the study.

Incentives use is a strategy that is suggested at the consent return time and after participation. In Berry et al. (2013), incentives were given to children and to parents. They included free healthy meals, drinks, and fresh fruit and vegetables. If parents needed childcare and homework assistance for other children, and transportation, they were also offered to them. Monetary incentives of \$20 for children and \$20 for parents were also provided for later retention efforts. To recruit parents specifically, suggested strategies were providing a meal, designing suitable materials, and face-to-face meeting with recruiters were facilitators to parents' participation (Jago et al., 2012). School district board policies and ethical considerations need to be considered when offering incentives to children and to their families. According to Rice and Broome (2004), incentives and choice of prizes should be suitable for children and parents within ethical boundaries.

The use of incentives for research recruitment is controversial, especially in the case of children research. There should be ethical considerations and planning put in place to reduce potential bias and challenges in families and vulnerable populations choice. Voluntariness to participate and informed consent should also be in place (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada, 2014; Rice & Broome, 2004). The type of incentive and research and families' conditions should also be considered (Rice & Broome, 2004). The majority of pediatric researchers disagreed that

payment to participants helped in recruitment or helped when providing more payment in a study that looked at offering incentives to children and youth and their participation numbers (Iltis, DeVader, & Matsuo, 2006).

2.5 Summary

Children in middle childhood develop physically, cognitively, emotionally and socially. Their health is affected by social and environmental factors. They also face some issues related to nutrition. The main issue is childhood obesity, due to poor nutritional habits. Children in Canada do not meet the nutritional goals of fruit and vegetables, and consume high amounts of high fat high sugar food. There are several factors determining children's eating behaviours including parenting style, media, peer influence, food preferences, and nutritional knowledge. Quantitative and qualitative evaluations of nutrition education and cooking programs show positive outcomes on different groups of children's knowledge, attitude, and skills. Access and recruitment of children and their parents to programs and research in the school system is affected by several factors and can cause challenges. There are some strategies to reduce the challenges of recruitment of participants.

CHAPTER 3: METHODOLOGY

3.1 Introduction

Evaluation research is valuable in determining the changes that a program has on the target group. Evaluation is “an essential component in the development, production, and implementation of all nutrition education programs” (Achterberg, 1988, p. 244). Program evaluation has four major types: summative, formative, process, and outcome (Contento, 2007). Summative evaluation is conducted after the program to assess its immediate or long-term effects. This kind of evaluation is also known as effect or impact evaluation, depending on when it is done after the program (Contento, 2007). Summative evaluation informs evaluators of the overall effectiveness of the program (Patton, 2002). Formative evaluation is done during the program at its early stages to assess the program activities in relation to the planned goals. In process evaluation, program procedures and components are assessed, whereas outcome evaluation asks the questions of the program impact on participants (Contento, 2007; Watson, 2011). This study was a summative and outcome evaluation.

Evaluation research uses a variety of methods: quantitative, qualitative, and mixed methods. Evaluation research has a long history of using quantitative methods (Achterberg, 1988). On the other hand, qualitative evaluation goes beyond the numbers to answer how and why questions, and it describes the program, the context, and the experiences of the people in a program (Achterberg, 1988; Patton, 2002). This helps the evaluator in understanding more deeply the program’s value and impacts from people’s perspectives. Qualitative studies bring rich and in-context data, and allow for design flexibility (Tolley, Ulin, Mack, Succop, & Robinson, 2016). Any qualitative study design has four main components: establishment of relationship between researchers and participants, sampling, data collection, and data analysis (Maxwell, 1996).

This study started as an evaluation research study using qualitative methodology to investigate and describe the effects of the Kids Kitchen program on children and their families from their perspectives. The qualitative inquiry in this research focused on asking about the knowledge and skills

gained by participants in the Kids Kitchen program and on eating behaviour changes, if any. It also focused on how the children were using the knowledge and skills gained from the program at their homes after at least one month at the end of the Kids Kitchen program. The plan was also to ask parents about their children's experiences.

Challenges in recruiting children who participated in Kids Kitchen and their parents to be part of this evaluation study arose. Only a small number of children participated with no participation from parents. Therefore, this research took a new path of investigating the challenges of recruiting children and their parents for research studies and program initiatives in the school system using qualitative inquiry. Individuals with experience in recruiting children and parents in the school system (hereinafter referred to as key informants) were interviewed.

3.2 Researcher's Story

In qualitative research, data collection and analysis depend on the researcher as the researcher is an important tool of the research (Patton, 2002). The researcher also acts as a partner with the participants (Tolley et al., 2016). Researchers in qualitative research bring their background, experiences, and perspectives. According to Patton (2002), researcher credibility and previous knowledge, beliefs, and experiences that may affect the data collection, interpretation, and analysis should be reported. Therefore, I am including a short background of myself and my experiences.

I am a registered dietitian. I graduated with a Bachelor of Science in Dietetics from the United Arab Emirates University. In 2009, I immigrated to Toronto, Canada with my family. I then completed a pre-registration bridging program at Ryerson University (Internationally Educated Dietitians Pre-Registration Program (IDPP)). In September 2013, I began graduate studies in the Master of Science in Nutrition program at the University of Saskatchewan.

I have community and public health experience in planning, implementation, and evaluation of nutrition education sessions within existing health promotion programs. These programs include

educational and counseling activities about food and healthy nutrition. I have a long volunteering experience with health promotion and disease prevention organizations in Canada, where I worked with children, adolescents, and adults. I have worked with the Child Hunger Education Program (CHEP) as a facilitator in their Kids Kitchen program in Fall 2013 in two schools in Saskatoon. Being a Kids Kitchen facilitator allowed me to view and experience the Kids Kitchen program from the teaching and program delivery point of view, and to interact with children and to observe their learning closely.

I have a long experience in working with children from preschool to high school age. I have been involved in children care and education since I was in high school. I volunteered in community centres that were involved in children activities. I have been teaching children in weekend schools since 2010.

Nutrition, education and children have been always great passions for me, and this is one reason to why I wanted to evaluate the Kids Kitchen program as my Master's thesis project. I started graduate studies with ideas about nutrition education's role in community food security. I have read many journal articles that studied and evaluated programs that targeted food security in the community. I also chose to evaluate the Kids Kitchen program because I wanted to enhance my knowledge and understanding of nutrition programs, the evaluation process, and qualitative research methods.

My experience in qualitative research was limited. In my course work at the University of Saskatchewan, I was briefly introduced to qualitative research methodologies, and qualitative data collection methods. I also pursued more knowledge by reading qualitative research textbooks and research papers, and with continuous discussions and consultations with my supervisor.

3.3 Study Populations

In the initial phase, target participants were the children participating in the program during the Winter 2015's Kids Kitchen offering, and their parents. The Kids Kitchen participants were boys and girls 9 to 11 years old attending two Saskatoon Catholic schools as the program at that time was offered only in these schools. For this study, a parent could be a mother, a father, or both, or a guardian.

For the second phase of the study, the study population was individuals experienced with student recruitment for programs or research projects. They were considered key informants and included Superintendent of Education at the School Board, principals of participating schools, school staff such as a Dream Broker (someone at schools who connects students to extracurricular activities, and assists with activities accessibility), School Community Coordinators, and an Aboriginal Student Retention Worker. Additionally, dietitians and researchers working directly with the school system either in providing programs or in conducting research at schools or through the school system were contacted and interviewed.

3.4 Sampling and Recruiting Procedure

Sampling strategies in qualitative research are different than quantitative technically and purposefully (Patton, 2002). There are no rules for a specific number or how to randomize (Achterberg, 1988; Patton, 2002). To obtain rich in-depth data, purposeful sampling is the sampling approach in qualitative research. Purposeful sampling is when the sample is selected based on the purpose of the evaluation (Patton, 2002).

At the time of the study, each Kids Kitchen session had 8-10 participants. The program usually ran during the school year in several schools at the same time. In fall 2013, there were three facilitators who ran six Kids Kitchens in November and December. About 48-60 children participated at the same period from six different schools. The number of Kids Kitchen programs offered depended on funding and the number of available facilitators. At the time of this study, participants were invited from two schools from the GSCS, where the Kids Kitchen was run by two different facilitators. The total number of Kids Kitchen participants was 16 students. All 16 students were invited to participate in the study. The intention was to recruit participants until no new data emerged from the interviews (data saturation).

The research population access process started with contacting CHEP, the organization offering the program at schools. CHEP provided details of school contacts. The researcher was then guided to approach the school board's Superintendent. Details about the study and the University of Saskatchewan

Behavioural Research Board approval were sent to the Superintendent with the research tools to be used. The GSCS then approved the study (Appendix 10). The researcher then met with the schools' principals, a Vice Principal, a Community Coordinator, and a Dream Broker to introduce herself and the study, and to arrange details around collection of materials and location of data collection.

Children had to have attended at least four out of five sessions of the Kids Kitchen program to be invited to participate. After the end of the program, invitation letters introducing and describing the study (Appendix 1) were given to children to take home to their parents. A form whereby the parent(s) indicated an interest in their or their child participation was attached with the letter (Appendix 2). Those letters were given to children after a short meeting with them by the researcher and the principal or vice principal at the school. The researcher introduced herself and the study to the students, answered their questions, and distributed the letter and the form to each student. The researcher also made sure that the form was returned to a school staff member who was known by all of the students.

In the letters (Appendix 1), parents were introduced to the study and the researcher. Contact information was included and they were welcome to contact the researcher and the school if they had any questions. Parents were also asked to fill out the interest form (Appendix 2) and return it to school with their children to a well-known person from the school administration and children (school community coordinator and school dream broker). Follow-ups were made with the schools to collect the returned forms. Follow-ups were then made with interested parents/children over the phone using the phone numbers provided on the forms. Choice of time and location of the interview was made by the parent with the help of the researcher to ensure ethics and safety. Their questions were answered. It was not necessary that child/parent pairs could only participate in the study. Thus, some parents may have wished to participate but not their child and vice versa.

Due to low number of interests in participation, providing incentives to children and parents was suggested as a way to promote participation. Incentives could hold a challenge due to ethical considerations. Rice and Broome (2004) included a list of recommendations to consider when incentives

for children's or their parents' participation are considered in research. A few considerations with providing incentives include age appropriateness, when to provide money, and consideration if incentive might force families to participate. A few ethical considerations should be in place: respect for people, beneficence, and justice (Rice & Broome, 2004). Incentives for children that were proposed were simple items that a child might like such as school supplies, a water bottle, or a sport toy like a frisbee or a ball. For a parent, a \$20 gift card or cash was the incentive to cover the cost of participation (e.g. transportation, childcare, or a meal gift card). Ethical measures around giving incentives to children and their parents to participate in research were considered and Behavioural Ethics Board at the University of Saskatchewan approved the proposal of giving incentives to participants and to indicate as such in the recruitment materials on May 27, 2015. However, incentives were not approved by the school board as a way to promote research participation (Appendix 11). The researcher was not provided with reasons as to why approval was not given. So, follow-up recruitment materials with an attractive cooking utensils theme were given to children at schools to promote participation and to remind the students and their families about the study.

For the second phase of the study, all key informants (N=9) were contacted by email communication. They were from the two Kids Kitchen participating schools and from suggested names of researchers working directly with schools. Invitation emails were sent to key informants inviting them to an interview. The purpose and procedures of this phase of the study were explained in the email (Appendix 12). A time and location of the interview were arranged for each key informant.

3.5 Data Collection Procedures

Interviews with children were used to collect the data. Parents could choose to listen in on the child interview if they so desired. It was proposed that this phase of the study use a short pre-test with children to obtain information on their pre-program food-related and cooking activities knowledge and skills using a short questionnaire (Appendix 5), and to be given before the first session of Kids Kitchen.

This questionnaire was piloted but was not used due to time limitations between the development and the access process to schools and participants.

For phase 2 of the study, key informants were interviewed at a time and location convenient to them. All interviews were voice-recorded and then transcribed verbatim to be used in the data analysis.

Before phase 1 of data collection, the CHEP dietitian who was working directly with Kids Kitchen program was interviewed to obtain background information about the program's history and details, and to provide any previous evaluation information.

3.5.1 Interviews

Interviews in qualitative research are “open-ended questions and probes yield in-depth responses about people's experiences, perceptions, opinions, feelings, and knowledge” (Patton, 2002, p. 4). In program evaluation, interviewing allows obtaining people's perspectives of the program. Interviewing depends strongly on the interviewer (Patton, 2002) as the interviewer controls the flow of the interview (Rubin, H. & Rubin, I., 1995).

This study used the interview guide approach that involves a list of topics and questions, but gives the interviewer flexibility to reword questions, to probe, and to create a more natural conversation with the interviewee (Patton, 2002). For this study, three interview guides were developed (Appendices 6, 9, 15). One guide was for child participants (Appendix 6), one for parent participants (Appendix 9) with a demographic profile questionnaire to be used to describe participants (Appendix 8) (both were not used because no parent participated), and one for key informant interviews (Appendix 15). CHEP's website (CHEP, 2010c), the program manual (Condie & Hartl, 2012), the literature review, and the interview and discussions with the CHEP dietitian helped in developing the children and parents interview guides. The program manual (Condie & Hartl, 2012) and children cookbooks were used to develop the photograph cues of some food-related activities (Appendix 7) to be used as probes in the children interview. The initial guides were reviewed, piloted by the researcher, and reviewed by the thesis committee. Children

interviews were conducted one month or longer after the end of the program. All interviews were voice-recorded for transcribing and analysis. The location for the interviews (schools and public libraries for children and parents, and school offices and the University of Saskatchewan campus for key informants) were determined based on the convenience of families and key informants.

3.5.1.1 Children's Interviews

Interviewing children should consider balancing interview questions and activities, and should use appropriate language that children understand easily (Mauthner, 1997). The use of structured activities and alternating between questions and other activities such as writing, drawing, self-complete instruments, and photographs would enhance the interviewing process (Mauthner, 1997). In this study, an icebreaker, simple-worded questions with probes, and food-related activity photographs were used as reminders and probes in the children interviews (Appendix 7). The interview was divided into three parts based on a timeline: before Kids Kitchen, during Kids Kitchen, and after Kids Kitchen (Appendix 6). Participants were asked questions for each time period, for example, what food did you make before Kids Kitchen?

3.5.1.2 Access and Rapport

Access to the program was gained through CHEP and the GSCS. Parents of children provided consent for their child's participation. The researcher explained the study purpose and methods to the Superintendent of Education at the GSCS. Meetings with school principals and other school staff to facilitate the recruitment and data collection procedures were conducted. Several visits were made to the schools to explain the study to the children and to build rapport, collect returned interest forms, and answer questions.

Building rapport with participants is an important step to collecting data. The researcher introduced herself and her study purpose and process to the students and answered their questions in short meetings she had with them at schools. The process of the study was explained to parents through the invitation letter (Appendix 1). More information was detailed on the consent form (Appendix 3). The

consent form contained information on the procedures and ethical measures taken at the study process and was signed by a parent. The assent form was aimed at children to sign (Appendix 4). It had a brief and simple description of study procedure and ethics. Finally, at the interviews, the researcher introduced herself and the study and aimed to maintain rapport throughout by creating conversations and using appropriate tools (e.g. pictures). An icebreaker was used at the beginning. The interviews were conducted at a relaxed environment and time, where there was no rushing and flexibility of pausing the interview when needed.

3.6 Data Analysis Procedures

Each qualitative study is unique in the analysis of the collected data. Qualitative analysis “involves reducing the volume of raw information, sifting trivia from significance, identifying significant patterns, and constructing a framework for communicating the essence of what the data reveal” (Patton, 2002, p. 432). Analysis is guided by the purpose of the research, the research questions, and the reaching of data saturation (Patton, 2002).

During data collection, and at its early stages, ideas for analysis emerge; therefore, the researcher should record all of the analysis ideas (Maxwell, 1996; Patton, 2002). Data organization and management are the fundamentals of the analysis (Patton, 2002). Listening, reading, and re-reading to data is the first step, which helps in categorizing and contextualizing strategies (Maxwell, 1996). First, categorizing happens by dividing data into categories and coding them to create themes. Second, identifying relationships and connections between themes is contextualizing (Maxwell, 1996). Data is categorized after transcribing, and then it is coded. All data sources are integrated in this process.

For data analysis in this study, ideas were recorded in a reflexive journal. Some of the journals were discussed with the research supervisor. In the two phases, interviews were transcribed verbatim. Phase 1 data were summarized and presented in a case-by-case format and findings were considered preliminary due to the small number of participants. In phase two, the interview transcripts were coded.

Categories were then created and compared to find themes. From the large number of categories created in the initial stages of analysis, many were merged into major themes and subthemes.

3.7 Trustworthiness

Trustworthiness, according to Lincoln and Guba (1985), is the basic characteristic for the study findings that makes the findings worthy of attention. Trustworthiness is the judgement of the quality of the qualitative data, which can be determined through the credibility, dependability, conformability, and transferability of data collection and analysis (Tolley et al., 2016). The terms listed above are the terms used by Lincoln and Guba (1985) to have the unique perspective of validity and reliability in qualitative research (Creswell, 2007). Triangulation is a technique for establishing credibility and means using different sources, methods, researchers and theories (Lincoln & Guba, 1985).

Creswell (2007) lists eight strategies to ensure trustworthiness of data (or as he called it validation): building rapport with participants and engagement in the field, using different methods of data collection, peer review and debriefing by people other than the researchers, presenting the researcher's background perspectives and biases, checking findings with participants, detailed descriptions, and peer audits of the research process and findings. Creswell recommends the use of at least two strategies depending on the resources available to the researcher. For this study, an audit was not conducted due to time and resource constraints, but the process for keeping materials for an audit were followed.

A reflexive journal was used of ideas, perspectives, and understanding of the data collected. Key informants were given the choice to check their interviews' transcripts. Discussions of data from the interview transcripts and the data analysis process were done with the research supervisor through regular meetings. The researcher professional and personal background was included under "3.2 Researcher's Story". Applying the above strategies contributes to the credibility, dependability, conformability, and transferability of this qualitative study.

3.8 Ethics

Ethical considerations are crucial in any research study. Research creates a power relationship between the researcher and participants, which makes the participant vulnerable (Brinkmann, 2007). In nutrition education research, ethical issues include informed consent, deception, privacy, anonymity, and confidentiality (Sobal, 1992). Similar ethical issues should be considered with qualitative methods and research with children.

Collecting data from children implies some ethical issues. These ethical issues are not exclusive to research with children (e.g. consent, access, privacy, and confidentiality). What highlights them in children research is the unequal power relationship that is created between the adult researcher and the child as a research participant (Mauthner, 1997). Researchers with children as participants should be careful when explaining the purpose of the study to them. They also need to choose a private space. This space is crucial so that the child feels comfortable. His/her privacy should also be ensured (Mauthner, 1997).

Parents signed an informed consent form (Appendix 3) that described the purpose of the study, the process of the study, and the interviews with them and with their children. This is considered a proxy consent, so in addition to it, children signed an assent (Appendix 4) in agreeing to participate in the study (Sobal, 1992). Written consent and assent forms were provided and explained verbally to parents and children. Questions were also answered about the consent and/or the study before participation. The consent form for Phase 2 of the study was also developed and explained to key informants (Appendix 13). In all phases, a copy of the consent or assent form was given to the participant, and a copy was kept with the researcher in a secured cabinet.

Privacy maintains the participant's control of the information. Anonymity and confidentiality are ways to maintain privacy (Sobal, 1992). Due to the involvement of the qualitative researcher with participants, it was not possible to maintain anonymity; however, confidentiality could be maintained. Confidentiality is more appropriate in studies that require follow-ups (Sobal, 1992). In this study,

confidentiality was maintained and information of participants' names and attached to data was never shared with people outside of the research team. No names or unique features that could identify people or schools were included in this research. All forms, transcripts, and written reflection were kept in secure locations.

Ethics application was obtained by the Behavioural Research Ethics Board at the University of Saskatchewan for both parts of the study.

3.9 Summary

The initial phase of this study was to evaluate the Kids Kitchen program using qualitative methods. In-depth interviews with children was the data collection method to answer phase 1 research questions. In phase 2, additional questions were added to study the recruitment challenges of children and their parents in the school system and the strategies to prevent and overcome them. For that, key informants were interviewed. Data analysis was conducted, and themes emerged from the interviews. Strategies to build trustworthiness in the findings were used. All research ethics were considered.

CHAPTER 4: RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the findings and discussion from the data collected in both research phases. Phase 1 findings focus on the nutrition knowledge, skills, and behaviours of children after participating in the Kids Kitchen program. These findings are presented as individual cases. Phase 2 findings focus on the challenges and strategies of recruiting children and their parents for programs and research studies. The findings are presented as themes and subthemes.

4.2 Phase 1: Children's Nutrition Knowledge, Skills and Behaviour After Participating in a Cooking Program: Children's Interviews

4.2.1 Description of Participating Schools

At the time of Kids Kitchen program offering in Winter 2015, two schools participated with the total of 16 students. Both schools were elementary schools (PreK-8) from the Greater Saskatoon Catholic Schools. However, each school had its unique student population. Neither school was an 'inner city' school.

One school was and continues to be located in a low-income neighbourhood in the city and is a community school. A community school is a school that partners with community organizations and community members to address concerns regarding education and community needs, and links schools to community resources (Saskatchewan Community Schools Association, 2006). The community school philosophy is to address poverty and improve education and community engagement with schools in urban areas, especially for Aboriginal students (Erhardt, 2006). This particular school, at the time, had a diverse student population of many ethnic/cultural backgrounds (e.g. Caucasian, Aboriginal, other) and included many newcomers to Canada.

The second school was and continues to be in middle-income neighbourhood. It served students from around the City and the student population was mostly Aboriginal.

4.2.2 Description of participants

Four children (3 females and 1 male), aged 9 to 10 years old, and who attended the Kids Kitchen program in Winter 2015, participated in the study. Participants were in grade four and were from one school. Two participants attended all five Kids Kitchen sessions. The other two participants missed one session out of five possible sessions.

Interviews took place at least a month after the end of Kids Kitchen sessions and before the end of the school year in June. Three children were interviewed at their school's library after a school day, and one child was interviewed at a community. Three parents were present at the interviews as they accompanied their children to sign the consent form and to provide transportation home after the interview. Two parents helped their child answer questions.

Only two parents expressed interest in participating in the parent interview, but no parent agreed to be interviewed.

4.2.3 Phase 1 Findings: Case Descriptions

The experiences of the four children varied and data saturations was not reached. Findings are thus presented as individual cases. Some findings are presented but they must be considered preliminary.

4.2.3.1 Child Participant #1: C1

C1, a nine year old female attended all five Kids Kitchen sessions. Before Kids Kitchen, she participated in some food-related activities such as shopping for food with parents, making scrambled eggs alone and with a parent, toasting and buttering bread, using measuring cups, and washing dishes.

C1 participated in Kids Kitchen because she wanted to “learn how to cook vegetables, grate cheese, make foods” and to learn how to make meals for her family. She liked Kids Kitchen a lot, especially cutting vegetables, measuring food, and mixing it in a pot while cooking. She did not have any dislikes about the program, except that the program was not long enough (not more than five Wednesdays). C1 learned how to cut green peppers, onions, celery, and tomatoes, how to grate cheese,

use a pot for cooking, and to make pizza sauce. When probing about knowledge learned at Kids Kitchen, C1 recalled learning about knife safety saying: “Don’t point it to you. Point it away from you”, kitchen safety: “To keep your hands off the stove when it’s heating.”, food safety: “Like after maybe touching chicken, you have to wash your hands, or after breaking eggs, you wash your hands”. C1 also said that she received a copy of Canada’s Food Guide and Plate Mate (Dairy Farmers of Canada, n.d.) as handouts from the Kids Kitchen facilitator, but she mentioned no further details about them even after probing. In terms of skills learned at Kids Kitchen, C1 recalled that she learned hand washing, reading and following a recipe, and grating cheese, which she did for the first time at the program. Grating cheese became her favourite food-related activity. She also mentioned that at Kids Kitchen, she helped make meals such as pizza, salad, chicken wraps, spaghetti and sauce, and vegetables and bean soup. She learned how to cut vegetables and helped in washing dishes and cleaning the kitchen counter with a cloth.

When asked about making the same dishes at home after the program, C1 indicated that she was only “50% confident” that she could make the same dishes that were made at Kids Kitchen. In other words, she felt she needed help to make them. She used some of what she learned at Kids Kitchen at home like: “how to measure maybe stuff if I help cooking, and if I cut food maybe, to keep it [knife] away from me and stuff, and don’t point it to anyone else, keep it away from our fingers. Place it away from fingers”. She helped in some food-related activities at home such as making salad by ripping off lettuce, cooking spaghetti, and making the soup she learned at Kids Kitchen. Her mother’s help made it easy to do food-related activities at home and more challenging when she was busy.

C1 believes that she did not make any changes in her eating. Her mother, who was in the room during the interview, said that she eats healthy like what they teach at Kids Kitchen. C1 said she chooses banana more often than other fruits as she thinks they are healthier and better tasting.

C1 was hesitant in answering most questions. She frequently said “maybe”, “umm”, “I don’t know” before answering. She needed probes and examples to be able to answer some questions. Her

mother was with her at the interview and reminded her with what she had done before and after participating in the Kids Kitchen program.

4.2.3.2 Child Participant #2: C2

C2, a ten year old female attended four out of five Kids Kitchen sessions. Before Kids Kitchen, C2 participated in some food-related activities such as shopping for food, reading and following recipes as a class assignment, grating cheese, helping make a meal, using the stove, cutting vegetables, cracking and beating eggs, and washing dishes.

C2 participated in Kids Kitchen because she wanted to learn how to cook. She had been involved in cooking at home, such as cooking eggs and making hotdogs. She wanted to learn more about food and cooking. At Kids Kitchen, C2 liked washing dishes and cutting vegetables for the bean salad. She thinks it is fun to cook. She liked the fact that children choose what they want to cut or cook. She stated that when she cut vegetables more, she got better at it. She did not like that some participants hurt themselves when cutting vegetables. C2 listed the dishes of salad, spaghetti, and pizza that were made at Kids Kitchen as what she learned at the program. Regarding knowledge, C2 learned about kitchen safety: “Like don’t put the knife near to your hand. Probably when you cut it [the food item], you may cut your fingers”. She also learned about food safety: “Make sure you wash your hands before you eat.” She also learned about reading a recipe from the side of the spaghetti box. At Kids Kitchen, C2 learned to 1) wash hands before eating, 2) wash vegetables before cutting them, 3) read and follow a recipe, 4) grate cheese, 5) make a meal, 6) use the stove, 7) measure water for the spaghetti, 8) cut green peppers and onions, 9) cook pasta, and 10) wash and dry dishes. Cutting a lot of vegetables at Kids Kitchen was a new learning for C2. She also mentioned the Kids Kitchen passport and other paper activities that were handed out, especially the food safety activity. C2 acknowledged that her friends shared what happened at Kids Kitchen at the one session she missed.

C2 believed that she could do what she learned at Kids Kitchen better at home because she received the recipes in a booklet (CHEP, 2013b). Prior to the program, she did not usually help her

mother with cooking because she was busy with games and watching television. However, after the program she grated cheese for a spaghetti dish, cut onions once, and used the microwave oven. She found making food at home easy when she had a recipe and her parents help with turning the stove on and off and following safety rules. She felt that she did not make any changes in her eating after the program.

C2 was a bit confused during the interview. English seemed to be challenging for her. Clarifying and rephrasing of questions were required during the interview. She also answered with “I forgot” and “I don’t know” multiple times. Her mother was quietly sitting in the same room, but did not contribute during the interview. She also mentioned her ethnic background twice: the spaghetti dish made at Kids Kitchen is different than what her family makes at home and her snack choice as a product from her home country.

4.2.3.3 Child Participant #3: C3

C3, a nine year old male attended four out of five Kids Kitchen sessions. Before Kids Kitchen, C3 helped in all food-related activities at home as his father is a cook. C3’s father involved his children in food activities. C3 washed his hands before touching food, grated cheese, made a meal and a snack, used the stove for making noodles, cut a lot of vegetables, cracked and beat eggs, and put dishes away.

C3 joined Kids Kitchen because he wanted to learn how to cook with his father, and he thought it would be fun with friends from his class. He liked Kids Kitchen and said: “It was awesome because I got to cook and even put my own stuff on it and got to cut vegetables and stuff. And we got to make pizza too that we got to make our own faces”. Making pizza faces and bringing them home was his favourite part. He did not like making the tacos because he does not like to eat tacos. C3 learned about safety, especially with the knife: “For safety, they said that: put your hands on half the food and cut in right here not close to your fingers. Put your fingers right here on the food.” And not to cut fast, so they do not cut themselves. He learned about Canada’s Food Guide and its components. C3 learned about choosing foods for Kids Kitchen, washing hands, grating cheese, making a meal or a snack, especially the pizza and tacos. He also learned how to use the stove to make noodles, to use the oven for making pizza, and to cut

vegetables. C3 did not read recipes at Kids Kitchen because other children in the group read the recipe and shared it with everyone else.

C3 thought he would be confident doing what he learned at Kids Kitchen at home. His father said that he did not provide the opportunity to C3 to make the recipes he learned at Kids Kitchen. C3 was reminded by his father that after Kids Kitchen he used the microwave to make noodles, and he cracked eggs to help his sister make banana muffins. C3 thought that what made it easier to do food-related activities at home was to have help.

C3 had lots of nodding and confusion during the interview. He said many times: “It is hard to think about it”, “I don’t remember”. It seemed that C3 is a shy boy. His father intervened a few times during the interview to remind him of activities done and to help him with answering some questions.

4.2.3.4 Child Participant #4: C4

C4, a ten year old female, attended all five Kids Kitchen sessions. Before Kids Kitchen, C4 participated in many food-related activities. She had fun memories in activities like shopping for food, washing hands before touching food at home and at school, reading food packages, reading and following recipes, grating cheese, making meals and snacks like mac-n-cheese, eggs, and crackers, and potatoes with tomato sauce, using a blender to make mango and pineapple smoothie, using the stove, measuring foods, using the oven with her mother’s help, a lot of vegetable cutting, cutting meat and chicken, cracking and beating eggs to make scrambled eggs, cooking pasta, and washing dishes.

C4’s participation in Kids Kitchen was influenced by her mother, who she described as “a very good cook”. C4 wanted to continue the tradition and to use cooking in her future. She said that Kids Kitchen was a fun experience and she would do it again if it was offered in another year. She did not like some Kids Kitchen participants’ behaviour of running and jumping on the seats and making noise while eating. What she enjoyed the most was making and eating the pasta dish that she made at Kids Kitchen, especially when they added some beans to it. She liked that she made the dish from scratch rather than

making it from the box as she used to do before. C4 said: “Because you could do more spices, and there’s more measuring, and it’s really fun to experience doing it instead of buying it because you got to do all these things that you may or may not have done before, and it [is] just very cool to you to feel it again or feel it once or lots of times”. C4 learned more about beans when they made the spaghetti dish. She learned about safety; “I learned that a parent supervision is highly mandatory when using knives, the oven, or the stove”. She learned hand washing for food safety and about the concept of “cross-contamination” between raw meat and raw vegetables. She also learned about new recipes, the proper way to measure food, and about Canada’s Food Guide food groups and servings. She actively participated in Kids Kitchen activities.

At home, C4 used the knife lesson, hand washing, and made some of the recipes such as the tortillas, a pasta dish, and banana bread from the cookbook they were given at the end of the program (CHEP, 2013b). She thought that she would not be able to do the same as Kids Kitchen at home because she had the help of ten people and that saved time. However, she thought she could do a lot from what she learned. She makes food with a parent’s help. Having parents around, a stove and a timer and a recipe to follow make it easier to do food-related activities at home. What made it hard were recipes not specific enough, or when she did not have all ingredients. C4 made changes to her diet like using honey instead of sugar in her tea, eating oatmeal for breakfast, and having popcorn as a snack. It was not clear if this was a result of Kids Kitchen or just information she learned from her mother who is a nurse. She liked the facilitators of Kids Kitchen and she recommended Kids Kitchen to other children.

C4 was fluent in speaking about her previous experiences related to food-related activities. However, it was not clear if the information was coming from the Kids Kitchen experience or other experiences. Additionally, there were a number of incorrect food and nutrition facts that she mentioned, for example, sugar causes AIDS, and that she needed to follow a diet to lose weight. She also had confusion regarding the source of information: her mother, Kids Kitchen program, or another source.

4.2.3.5 Preliminary Summary of Findings

Although the children had varied experiences and data saturation was not reached, some common findings were found. However, these must be considered preliminary and are provided here for reflection.

4.2.3.5.1 Pre-program food-related and cooking experience/interest

All participants were involved in some food-related or cooking experience before Kids Kitchen. They were involved with their parents in shopping for food, making some basic dishes and in helping in the kitchen (e.g. washing dishes) (Table 4.1). Children participated in Kids Kitchen program because they wanted to learn more about food and cooking and to help their parents in making food for their families.

4.2.3.5.2 Variety of learning among participants in Kids Kitchen

Not all children were exposed to the same information or set of skills at the same Kids Kitchen. Participants were divided into groups to perform tasks required to make a meal. Some participants measured food (e.g. spices, liquid ingredients), some cut vegetables, some watched the pots on the stove, and some helped with washing dishes. Participants might have also worked with different facilitators in the sessions. There was usually a main kitchen facilitator and one or more volunteers, who helped teach and supervise the children during the session. They may have taught a group some information or skills that another group did not learn (Table 4.1).

4.2.3.5.3 Adults' influence and support

Participants indicated how adults influenced their interest in food and cooking or influenced their cooking skills and food-related practices. Parents, school teachers, and the program facilitators were all mentioned. Participants had parents who had an interest in cooking and food, and some in nutrition. Facilitator and volunteers were also mentioned as teaching specific skills. Other studies have also found that children's cooking views and practices are influenced by adults (Caraher et al., 2004), and that children usually learn cooking skills from their mothers (Engler-Stringer, 2010; Health Canada, 2010b; Lavelle et al., 2016; Wolfson et al., 2017), or other family members (Wolfson et al., 2017).

4.2.3.5.4 Dependability on parents in food-related activities

In all cases, participants said that they did not fully trust their abilities to be independent in the kitchen. They emphasized “adult-supervision”, “with mom” or “with dad”, and “I need parents help”. Participants thought that they needed help in some food-related skills and an adult to ensure they were safe in the kitchen. It was not clear if that was something taught at the program, or whether participants had these ideas beforehand.

4.2.3.5.5 Positive Kids Kitchen experience

All participants expressed that Kids Kitchen program was fun, enjoyable, and likeable. They liked the activities and having their classmates with them. They also liked having new experiences and the recipes they made. Their dislikes were very few and they were not with the program content, but related to other participants behaviours or food dislikes.

4.2.3.5.6 Application of at least one skill at home after the program

After the program, participants tried at least one skill they learned at the program (e.g. grating cheese, using the stove, and measuring food ingredients). Some tried full recipes they learned at the program.

4.2.3.5.7 No nutrition behaviour change as a result of Kids Kitchen

Participants learned food-related knowledge and skills at the Kids Kitchen program, but they did not appear to make any changes to their eating habits as perceived by them. More research would need to be carried out to determine the effects on eating habits.

4.2.3.6 Phase 1 Preliminary Conclusions

Phase 1 results must be considered preliminary as they are based on brief interviews with four children. Participants who participated in Kids Kitchen program were interested in food, nutrition, and/or cooking with their families. Participants enjoyed their experience at the Kids Kitchen program and they had a variety of learning experiences there (Table 4.1). Adults were influencers on children’s interest and

learning of food-related activities. Even after being part of the Kids Kitchen program, participants still depended on adults to apply skills learned. All participants applied at least one skill learned at the program at home with a family member. Overall, Kids Kitchen seemed to have positive impact in terms of enhancing food-related knowledge and skills in the targeted group. It was appreciated by participants and by their families. Nutritional behaviour change was not perceived by children.

Table 4.1 *Skills Learned Before and During Kids Kitchen Program by Interview Participants.*

Food-related Skill	C1		C2		C3		C4	
	Before	During	Before	During	Before	During	Before	During
Shopping for Food	Yes	No	Yes	No	No	Yes	Yes	Yes
Reading Food Packages	No	No	No	Yes	Yes	No	Yes	Yes
Washing Hands Before Touching Food	Sometimes	Yes	Sometimes	Yes	Yes	Yes	Yes	Yes
Following a Recipe	No	Yes	Yes	Yes	No	No	Yes	Yes
Grating Cheese	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Making a Meal or a Snack	Yes	Yes	Sometimes	Yes	Yes	Yes	Yes	Yes
Using a Blender or a Food Processor	No	No	No	No	No	No	Yes	No
Using the Stove	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Measuring Food	Yes	Yes	No	Yes	No	Yes	Yes	Yes
Using the Oven	No	No	Sometimes	Sometimes	No	Yes	Yes	Yes
Cutting Vegetables	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cutting Meat and Chicken	No	No	No	No	No	No	Yes	Yes
Cracking and Beating Eggs	Yes	No	Yes	No	Yes	No	Yes	Yes
Cooking Pasta or Rice	No	No	No	Yes	Yes	No	Yes	Yes
Washing Dishes	Yes	Yes	Yes	Yes	No	No	Yes	Yes

4.3 Phase 2: Recruitment Challenges in the School System and Strategies to Prevent or Overcome the Challenges: Key Informant Interviews

4.3.1 Description of Participants

The eight Key informants interviewed were: one School Board Superintendent of Education, two School Principals, one Dream Broker, one Aboriginal Students Retention Worker, one Dietitian working with schools, and two health researchers conducting research within the school system. In this phase, data reached saturation in collection and analysis.

4.3.2 Themes

Themes that emerged from the eight interviews were grouped into two main categories: challenges and strategies. Each category had multiple themes and subthemes (Table 4.2)

Table 4.2 *Phase 2 Themes and Subthemes Categories.*

Recruitment Challenges	Recruitment Strategies
<ul style="list-style-type: none">• Formal Recruitment Process• Reaching out and recruiting parents<ul style="list-style-type: none">○ Availability and priorities of families• Communication message and approach• Views on institutions and research• Accessibility issues• Transportation limitation	<ul style="list-style-type: none">• Building relationships• Effective communication<ul style="list-style-type: none">○ Promoting the benefits of participation• Prizes and incentives• Monitoring and barriers reduction

4.3.2.1 Recruitment Challenges

Key informants indicated that recruitment of children and their parents in the school system is a challenging process. White (2012) also documented this challenge.

Six main themes were identified under the challenges category and included: formal recruitment process, reaching out and recruiting parents that included availability and priorities of families, communication message and approach, views on institutions and research, accessibility issues, and transportation limitation (Table 4.2).

4.3.2.1.1 Formal Recruitment Process

External program providers and researchers targeting children usually access them through the school system. Recruiters need to go through multiple steps process to reach children. The process usually starts with the school board in the district the school resides, which is usually with the superintendent at the school board. Level 2 is at the individual schools' level starting with the schools' principals then to staff and/or classroom teachers. Level 3 is the parents' level, where they give consent to their children participation or they register their children in a certain program. Then is the children decision to be part of a program or a research study by signing assent form. The levels before reaching to the child were described as "gate keepers" or "layers" or "levels" of recruitment by key informants (Figure 4.1).

At each level, the recruitment may be challenged. Challenges can be related to the time and nature of the proposal, how busy the school is. and the priorities of the school board, schools and families.

A4: "For all barriers, every step and every point, there's a barrier at some point: that's superintendent level, that's school level, connecting with the parents' level"

The first point of contact is key in allowing the proposal of a program or research to move forward to the next level. In Saskatoon Catholic Schools, it starts with the superintendent of Education. The superintendent filters and selects programs and studies from the many requests received according to the perceived benefits those proposals bring to schools and students. The school board superintendent then activates the initiative by communicating it to the principals of targeted schools. The superintendent monitors the initiative by following-up with the schools' principals. The superintendent visits schools bi-annually. He/she communicates with principals on a regular basis regarding a program or a study that is supported by him/her.

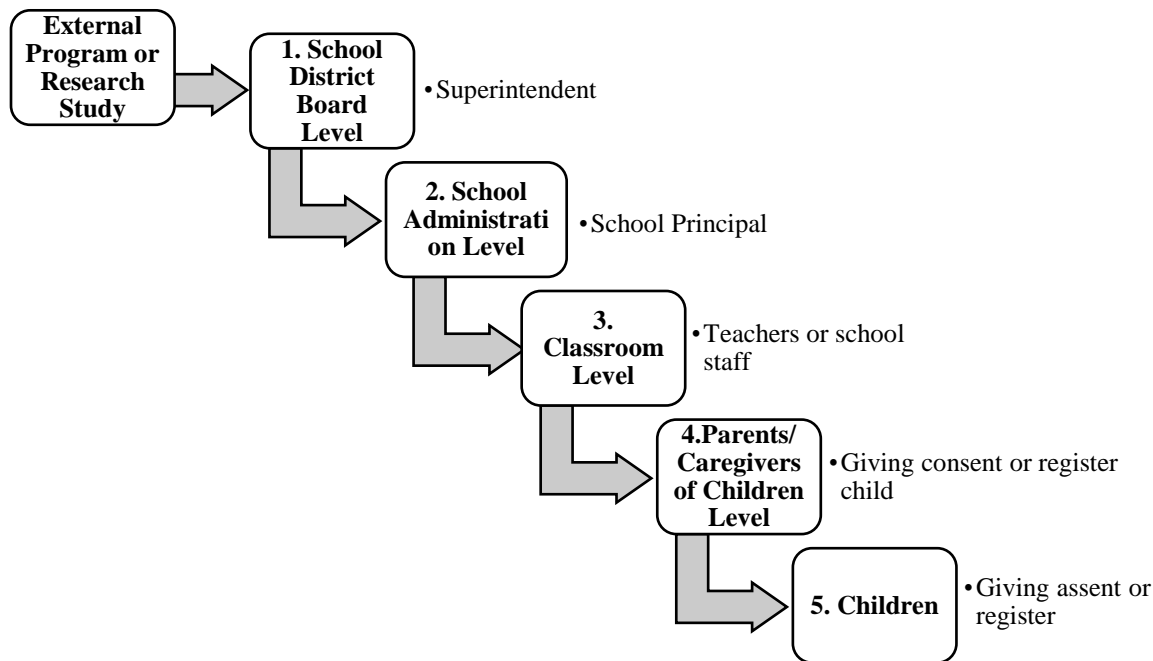


Figure 4.1 The Process for Recruiting Children to Participate in Programs and Research Studies in Schools.

Receiving a response to a request from the school board superintendent might be a challenge. There is a question if it will be approved and passed to the schools. A dietitian who works with a community organization that provides nutrition programs at the city schools expressed that:

A4: “So often we always have to go through the school division, so getting response from the school division, as you know, is very difficult sometimes. It depends who is connecting superintendent is. If they’ll even respond to our request, if they will respond and say: “yea, I am okay with this.” Do they pass on the message to the schools, and say this is going to happen? So that first connection is that first point of contact is a struggle, always. If we have a superintendent who is willing to let us take this further into the schools and do they even communicate with us about it?”

Principals usually contact the superintendent for guidance about approving programs and research studies for their schools. A principal’s enthusiasm about a proposal plays a role in activating it and moving it to the next level. Barriers may appear based on the priorities of schools at the time of the proposal of a program or research. Principals may be busy in their own day-to-day roles, especially if there are other

curricular or non-curricular initiatives taking place in their schools. A new program or study may be ones for which they and their school do not have time.

A6: And sometimes I'll see that if a particular principal is feeling overwhelmed or there is so many new curriculum initiatives and so many requirements around reporting and what not. When I do my bi-annual visits to the schools, will review school programming, and I'll say: "gee, don't have this program any more, you don't have this one, you don't have this one," and often comes down to the particular leader, to the principal, he or she will say: "Well, you know, I was feeling overwhelmed, and there is too much on the go, and I was too busy, and I always have to look after the programs, and there were behaviour issues in the program that I have to do discipline, where it isn't in the context of the school that I got enough in the school to get to deal with that have happened from 9:00 to 3:30."

A8: "If the school itself hasn't bought in, or even if they bought in, but feel that this not as important to priority for them, that can be something. So, I think there're many things that can be happening at the same time. And as I said overloads can create those problems, because people just are bombarded with so many things that they select the ones that they really want to do. That has been my experience with it."

Another challenge is that the process for receiving permission may take time as a proposal works itself through the process.

A8: "It takes time to go through each of the challenge the principal, the teacher, the coordinator, the parents, the students, right? And at each one of those, it just takes little time to get those organized. So time was one."

Several studies agree with this study's finding that the process goes through multiple-levels (Harrell et al., 2000; Sacheck et al., 2015; Smith & Petosa, 2016; White, 2012).

4.3.2.1.2 Reaching out and Recruiting Parents

Parents are typically not a part of the day-to-day school environment. The lack of face-to-face communication between the school and the parents makes it more challenging for schools to reach out to parents and involve them in programs and initiatives. The parents' major role is to provide consent for their child(ren)'s participation in programs or research studies. It is usually challenging to get consent forms back to school. Another challenge is recruiting parents to participate themselves in programs and research.

A7: “[Challenge number] Two, would be connecting with parents because you might not be always face-to-face with them, so getting the consent form to them, and getting it back from them.”

Key informants conducting research with schools indicated that children usually “get excited” and are “glad” to be part of research and program of interest, but the decision of participation depends on their parents’ consent.

A4: “If it was up to the kids, they probably gladly give you, you know, some of their input, but if parents don’t see it as relevant to their lives, they probably not going to care to participate.”

A7: “I find most of the time children are quite willing to participate in research. They find it fun and engaging and that makes them maybe feel special, particularly for taking off a class or anything, but sometimes parents are hard to recruit for”

Two key informants indicated parents perceived self-efficacy, knowledge and skills, which may be a barrier for their or their children participation:

A2:” I would say that, and I think also parents perceived efficacy can be a real challenge. They don’t think they have anything to offer, which really isn’t true at all. They have so much to offer us, but they don’t understand that they do, and so I guess that you know that something that it’s a tough one to address. We want to educate parents in the fact that we see them not in terms of deficit but in terms of capacity that they do bring to the table.”

A5: “And also to make them feel that they’re capable as well to really make them believe in themselves that they can step up to the plate and sincerely believe in them, so they believe in themselves.”

Other key informants indicated that priorities of families are factors that affect their willingness to take part in school activities. They referred to factors that Walker et al. (2005) had in their model of parental involvement in children education (Figure 2.1). (see subtheme 4.3.3.1.2.1).

4.3.2.1.2.1 Availability and Priorities of families

Key informants indicated that families have many responsibilities in their daily lives. It was expressed by some of the key informants as “survival” on the day-to-day basis. Many parents focus on providing the “basics” and may be unable to provide what is beyond that. Parents may have multiple jobs, work in shifts, be students, have three or more children and/or have very young children, and have other commitments. Parents may be too tired to have their children or themselves participate in after school activities. If parents need to make “separate arrangements” for their or their children’s participation, it

could be a challenge. Parents are more likely to let their children participate in programs or research if they do not need to make “separate arrangements”. Thus, scheduling programs or studies during or around school calendar and school day may be helpful, according to the key informants. Many schools also help providing assistance with transportation, but this assistance may not be always feasible or available.

A1: “It just once they get home for the night, it’s hard to get them back, it’s hard to pull them back in . . . once they go home for the night, it’s a whole different ball game. It’s hard to get them back (laughter).”

A5: “A lot of our families are working, you know, or going to school. So a lot of young moms and dads are going to school, so they during the day they’re going to school. In the evening they’re studying themselves, so they’re tired (laughter), you know, worn out, and then also dedicated to getting themselves ahead as well for their families, so really, get supper on, get the kids homework done, get them to bed, and then in the evening, they’re focusing on their studies, or if they’re working, a lot of them are working shift work or weekends. So understanding that, that’s hard for them to set time aside for a lot of things.”

Parents may also have their older children take care of their younger ones, which may prevent older children from taking part in after school programs or to participate in research studies. Families may also be caring for older family members. This was expressed by a key informant as “multigenerational households”. Sometimes parents need to prioritize other commitments instead of participating or letting their children to participate. These reasons might be preventing them from taking part in some programs and research studies.

A1: “getting a child who’s interested in an activity to their activity isn’t your first priority. When you have those other children at home, there is no other way to get them to their activity, that is the last thing on your mind you are trying to just survive day to day.”

A2: “if they’re working a couple of jobs can be a challenge as well. Some of our families are kind of multigenerational households, which sometimes there is you know care of the elderly parents, you know that’s to be taken into account, and then on the other side of things, you have young families that can’t get out because they have little ones to care for.”

A6: “children maybe from ages 10 to 14 or so to come home at the end of the day and babysit. I know in a lot of our communities where we have working poor. I guess working poor is the way to put it, or families that are students themselves where the parents are students themselves, often times they rely on the children from about ages 10 to 14 to be the babysitters after school, and so if a program for example is targeted at that age group, but there’s children of 4, 5, and 6 in pre-K,

K, or grade 1, and they're responsible for them. Unless they can bring them to the program with them, they're not likely to be able to participate."

Matching families' values and interests and demonstrating direct benefits to families is important to promote participation in programs and research. Therefore, if families do not see a program or study as beneficial to them, they are less likely to participate. For example, according to one school principal, children may prefer physical sports programs over other programs. Another example is that some families may value the "social aspect", when there are big events, where people are gathered, and food is provided. This makes parents more willing to participate.

A2: "I'll start specifically with students I guess would be the just the lack of interest in some programming, so if kids, if you are recruiting kids for something that just doesn't keep their interest, they'll not going to come. Things that don't have I mean an immediate obvious benefit to them, they may not, things that are not social in nature that also can be a roadblock, and it all depends on the kids. For example, sports will attract some kids but not others and vice versa with other activities like say a chess club or something like that."

If a program or a research study does not have benefits for children, parents, or families, or if the benefit is not understood, recruitment may become an issue.

A4: "Kids on the other hand will just [be] going to take their parents' consent, so if the parents don't think it's important, they probably don't going to consent to the children."

4.3.2.1.3 Communication Message and Approach

Schools communicate with students' homes using different written or verbal communication methods. Verbal communication is achieved through phone calls, and face-to-face communication at school events or when parents are visiting the school. Written communication, the most common approach, is achieved through newsletters and emails. Typically, parents receive newsletters that include school and/or classroom news and events. The school also sends materials (e.g. invitation letters, registration forms, and consent forms) regarding new program or research initiatives home with the children.

Key informants indicated that the written communication between school and home is challenged by several points: 1) whether these communication materials reach home, 2) whether they get read by

parents, 3) whether they are understood, or 4) or if they get signed and returned back to school. Although written communication is commonly used with parents and children, key informants emphasized that written materials are not the most effective way for recruitment efforts. Many key informants mentioned that children lose the written materials or forget to take them home. Some also indicated that they hand out the same forms more than once to make sure that it reaches parents.

A1: “you’ll give a child a form, they’ll fold it up, put in their desk, forget about it for, you know, a couple of days, 3 or 4 days, and then I’ll send they’ll need it back within a couple of days, they’ll take it home, and it goes missing. They come the next day, give them another one, take it home, goes missing.”

A1: “I can’t tell you the number of times I had to photocopy and send the forms home and never came back, but it is, I don’t know what to do to make it any better like you know like it’s sometimes you need that signature, and you just can’t get it.”

A2: “information. information. Information. like making sure that the parents know what we’re doing why we’re doing it, and sometimes that’s not well served by a letter or a newsletter that we send home.”

Key informants also acknowledged that parents might be too busy to read a consent form or might be unable to read materials or forms.

A5: “Sometimes, it gets a couple of times of sending forms. Again, because parents get so many things in their kids’ backpacks and sometimes overwhelming, so to send it separately amongst other things is better.”

A7: “I think the other reasons why it’s hard to get parents to engage in research or to sign off on children’s engaging in research is simple logistics of them getting the consent form if having time to read it.”

A7: “and then often times, on the parents’ sentence, they’re often busy that they want to read it and they want to get informed, but even sitting down they don’t want to read three or four pages. It gets put on the to-do list and on the pile papers on the coffee table. Day one, day two, day three, and eventually they just forget about it.”

Parents may be challenged by the concept of a consent form or the language used in research ethics, for example. According to a school researcher key informant, research consent forms are usually made for grade 12 reading level often making them difficult to read and understand, but they do not have to be so. It is difficult for parents who have not completed grade 12 to read it and understand it.

A7: “however, when I recruit elementary schools, particularly the younger ages, so kindergarteners and grade ones, it can be challenging to recruit. I think maybe because parents are not as used to having people come with consent forms and I feel like maybe by the time they’re in high school or in grade five or grade six, the parents are so used to multiple of consent forms coming home every year whether it’s for participating in research, going here, doing this. Half the time the parents just get out a pen and signs away without reading too much, but maybe in kindergarten grade one, they read everything through and they see things that maybe scare them a little bit.”

A7: “it’s harder for them to maybe understand the consent form that we might think is easy for somebody with grade 12 education to read, which is we kind of generally shoot for, but maybe that person barely got through grade 12, or didn’t get through grade 12 and they don’t want to, and thus they can’t read it and sign off on it.”

The final step is for the forms to be signed and returned back to school in a timely manner. This was also identified as a challenge because children do not always return consent forms. Esbensen (2008) also agrees that obtaining consent forms is difficult.

4.3.2.1.4 Views on Institutions and Research

Words such as intimidating, scary, mistrusted, uncomfortable, tiring, new, unfamiliar, stranger, and foreign were used to describe how some programs, research, schools and universities may be seen by some families.

If an experience is unfamiliar or new, it may bring anxiety to some families, which can make it challenging for them to allow their children or themselves to participate.

A1: “I think like it’s intimidating to start out in a new sport and a new activity, and I think our families find that, even with organized teams or things like that or starting a new program, it’s very intimidating like a lot of times to ensure that the families are actually going to the first one just to get over that hurdle, I will go with them because going to a place you’ve never been and registering a child. . . it’s very intimidating walking into something where maybe all of the other kids have been in that program together for years already. So, registration nights can be very... I think they are they bring a lot anxiety for the families and they can be intimidating, so that I think is another barriers. We have families who’re just wanting their kids in something so bad, but when it comes actually down to taking them to say like a soccer field to find their coach when there are ten teams practising. It could be very intimidating.”

Sometimes, recruiters can be perceived negatively, especially if they are unknown to children or the parents. A key informant described it as that people may consider the “new” person as an “additional

worker” in their lives, where they might not have had the most positive experience with a “worker”. Some people do not feel comfortable speaking or sharing information with them.

A1: “For a lot of our families, when someone new comes into their life and just kind of hands on a form. A lot of our families have workers, social services workers, they have like children first workers, family worker, and a lot of these people are maybe not the most positive people in their life. Sometimes they maybe had their kids taken away, and then they’re just getting their kids back. Things like that. That is not always the case but sometimes when a new person comes along, it seems like it’s another worker in their life. You know what I mean? Like they wouldn’t be maybe the first people to jump on board to help with research thing.”

According to key informants, research can be more intimidating than other initiatives due to contextual and historical reasons. Contextual reasons given were: “heavily-researched populations” and “helicopter research”. There are some populations that are considered over- or heavily-researched such as people living in poverty and food insecurity conditions, people in urban areas, Aboriginal people, and new immigrants. A key informant described that sometimes researchers collect data and never bring back any kind of benefits to the researched population. Historical context is brought in the form of “marginalization” and “colonization” and in the description of “residential schools” experiences by some families. Some people also think that they are being “used” by research and they have a “negative stigma” around research.

A4: “The school population that we’re trying to research is a heavily researched population and they get sick of being researched and it’s hard.”

A5: “I find that also in the school system or any kind of institution, because of the residential schools that are families which like 98% of our students are Aboriginal, the residential schools have really clouded their perception of schools, so they’re always reluctant. You know, we’re working through, slowly, but surely. So, when they hear of studies from a school, for instance, or from a higher point of education, I think they have some apprehension some fear of where this will go or just fear of school institutionalizing type of places for them is a red flag.”

A7: “research can be scary. Maybe if you are a person of indigenous descent or maybe a new Canadian or somebody who is a minority, because I feel that these groups of people, researchers historically, not anymore, used to go in, get data, and get out. There was nothing, there’s no help given to the community. There was nothing positive for them. It was just people from the university like us that came and got information, took it, and then sometimes unfortunately, misrepresent it or got published maybe ways the community didn’t want it published, so I feel that there’s a little bit of fear from minority groups on engaging in research for historical reasons.”

Yancey et al. (2006) also found that there is a negative perception of research and mistrust of government, institutions, and/or researchers from minority populations such as African, Latino, and Native Americans when recruited to take part of research

When a program initiative or research study comes to schools, it usually comes from an institution such as a university. Being inexperienced or having a negative experience with an institution can affect participation negatively. Intimidation from what comes from a university may result if a person has never been to university or does not understand what is done there. Negative historical experience from residential schools in Canada creates negative perceptions around the school system for some people. The residential school idea was emphasized by several key informants.

A1: “Like they wouldn’t be maybe the first people to jump on board to help with research thing when they’ve never been to university. They don’t know like a lot about what you might be doing there. You know what I mean? Like I guess day to day living and survival, maybe they don’t see the big picture of what you are trying to accomplish.”

4.3.2.1.5 Accessibility Issues

Accessibility in health is a complex term defined as the availability and use of services that is measured by affordability, acceptability, and physical accessibility (Gulliford et al., 2002). Accessibility issues came up in different examples mentioned by key informants. Accessibility to money, communication channels such as a phone or internet, childcare services, and transportation were mentioned by key informants. Inaccessibility to adequate income to cover costs of participation was one of the barriers to participation. Costs to participate came in the form of registration fees in some programs, special program requirements (e.g. uniform, equipment, and materials), transportation, or daycare cost. Cost may be higher for some families with more than one child. Poverty and hunger were highlighted as being barriers to participation.

A1: “if you are registering through a program and you don’t actually have the money, and so like a lot of my families will go and have applied for funding, so they’re going in with no money and they can’t pay any extra fees. “Oh well, there’s an extra fee for if your kid wants a bunnyhug or if they want, you know, to have the clothing that everybody else has or whatever. They’re just not prepared to I don’t think put themselves in a situation like that when you are low income.”

A5: “Some people have more than two children, so the money is spread, and it becomes very thin after a while.”

Participants indicated that some families do not have regular access to phone or internet, which makes it challenging to contact and follow up with them.

A1: “another barrier I would say. Well, the internet access is a huge one like a lot of people just send out emails with their schedule for the practices and that type of thing or last minute changes to whatever, and then our families don’t have that, so they’ll go to their activity maybe it’s cancelled that night or something, so that is a big one. Even phone access. A lot of our families are on with cellphone that have pay-for-minute, so they don’t want to call around and figure out rides and finding out information when you only have certain amount of minutes to get through the month, so a lot of time my parents will text me because it doesn’t waste their phone minutes.”

Inability to access childcare services can be a barrier as well, which was also touched on by key informants.

A2: “you have young families that can’t get out because they have little ones to care for. Daycare is a big challenge for a lot of our parents both for cost and accessibility, so that’s kind of another thing.”

Results showed that it is more challenging to recruit low socioeconomic status students.

However, a key informant shared that a certain community or a socioeconomic status are not the actual challenge, but the recruitment strategies used for recruitment.

A8: “I don’t think that the socioeconomics or communities are the problems. I think it’s the strategies that we use are the problems. There’s no one size fits all, and sometimes we come to these communities with the one size fits all. We went, for example, into one community in just out of Saskatoon, about an hour and a half, we did for example, we had the signing of the agreements in one class: no problem!”

A8: “And you find these populations in urban, you find them in rural, you find them, you can find them in every socioeconomic levels. You can. They’re not limited to just one. You could find people in every socioeconomic where you know that haven’t spoken to the principals, you got to do something different.”

4.3.2.1.6 Transportation limitation

Almost all key informants mentioned accessing transportation as a challenge to participation in programs and research studies for families. Families do not necessarily live close to schools. They may live in different locations around the city. Children may be transported by school buses to and from

school, and may not have any other way of transportation. Many families do not have vehicles, or their vehicles are not functional. Sometimes, it is a challenge to arrange rides or use public transit.

A3: “like I said are very difficult to overcome a transportation challenge where we exist, and we serve families you know in over 50 neighbourhoods in Saskatoon, so there’s no. yea it’s very difficult to bring everyone into the school when there are so many diversities for why those that can’t be there aren’t there.”

A6: “And there’s the pragmatic challenges like transportation. So many of our families now are transported to and from the schools, our children are transported to and from schools that I know we’ve initiated programs, like before and after school programs. It’s not actually a good example because it’s a direct benefit to families that might be working or in school or what have you, but other after-school programs, where we expect to be good buy-in, and there’s not good buy-in, and then we assess why that is, and the principals will tell us transportation is an issue. If the bus leaves the school at 3:20, the program starts at 3:30, and runs till 4:30 or quarter to 5:00. If parents don’t have the wherewithal to have their own personal transportation to come pick them up at the end of the program, then we’re not going to get the buy-in, so we really had to adjust a lot of our programs. We really look now at what we can do within the context of the school day. . so transportation is a big issue.”

4.3.2.2 Recruitment Strategies

Many strategies were mentioned by key informants. Strategies were indicated throughout the interviews and not just when asked about them. This indicated that key informants are constantly working with challenges and strategies during recruitment of participants in the school system at different levels (school board, schools’ administration, classroom, parents, and children). Some strategies can be used at initial recruitment stages, and some can be used throughout the recruitment process. The strategies mentioned below are a combination of those the key informants have used and those they recommend but might not have used.

A8: “But that’s for me, the challenges haven’t been something that I can’t work around. The challenges have always been things that: “oh this is happening, so maybe we need to adjust what we’re doing”. Adjust it early in the game, keep in touch with the people you’re working with, so that you can adjust early in order to make it work. I haven’t really, can’t say there has been that challenge that we’re not able to overcome.”

4.3.2.2.1 Building relationships

Relationship building was emphasized by all key informants as the initial and essential strategy to recruit children and their parents for programs and research. Relationship should be built at different

levels: between the program provider or researcher and the schools, which is represented by the school board (superintendents in this case), school principals, school staff (vice principal, school community coordinators, dream brokers), and teachers. The relationship should also be built with children and parents. This relationship, especially with parents, is built by effective communication. Face-to-face meetings with children and parents makes it easier to get to know the recruiter. To build strong relationships, school staff should meet children regularly during the school days. School administration also invite parents to meet them at school academic and social events such as parent-teacher interviews, literacy nights, pancake breakfasts, and pizza nights.

A1: “it’s sometimes I call home. I try to connect with the parents that way or on days like parent-teacher interview nights or pancake breakfast days. Those are really important to meet the families, so they know who I am . . . and it’s good that I work right in the school because I can see them walk by my door and say: “Hey, you have karate tonight” or “hey, we are doing this” or whatever.””

A5: “Getting to know the families. That’s a biggest, biggest, the best way to overcome any challenges: getting to know the families, build the trust with the families, and know that we are sincere about helping their children achieve what they’re capable of achieving.”

Relationship and trust take time to establish. Many key informants indicated that they spent years building relationships and trust with families. Key informants also mentioned that it is a continuous process throughout recruitment efforts. There are also special programs and positions created at schools to improve relationships with students such as the dream broker and the dream brokers program. The dream brokers program is a program by Sask Sport that aims to connect students and their families with community programs in arts, sports, culture, and recreation in some inner-city Saskatchewan schools (Sask Sport Inc., n.d.). Dream brokers are based in the school. They build an informal relationship with students and support them to take part in activities.

A1: “I am centered right in the school and I’m very accessible to the kids. My doors are always open. The kids are welcome to come in. They don’t have to call me Mr. or Mrs. They just call me by my first name, so I am kind of more on their level, and I’m not seen as an authority figure. Like I am seen like a welcoming caring adult in their life versus like an authority figure. I don’t discipline the kids, that is not my position at the school at all, so what they kids either come in and talk to me and tell me the things that they like to do or I go directly into the class at the start

or at the end of the day and tell them like: “Hey we just have this cool program coming up. It’s super awesome. You guys should try it,””

A2: “with a lot of our parents, I mean, I am still building. I’ve been here five years, and I am still building relationships. It’s never a process that’s done, but at least I have the advantage of some established relationships. I think I can go to parents a lot easier because of that. I think that’s a huge one as it really come down to the relationship that people have with our parents.”

A5: “It takes a long time to build trust. There’s some families, in fact, it took me a year in working with them to build trust to be able to recruit them to programs. They really need to know the person WELL before they will feel comfortable enough to be involved in programs.”

For an external program provider or a researcher, relationship and trust are built at the school board and school level. This starts by learning about the school system, the schools, and the populations that attend these schools. Also, communication between the program provider or researcher and the school is crucial for establishing and maintaining the relationship. It will help with tackling issues early as well. The relationship is better maintained even after the study is done. Another level of building relationship and trust for external program provider or researcher is the parents` and children levels. Some researchers volunteer at the school they are involved with to create a relationship on the school, students, and parents level. By volunteering, researchers become familiar and give back to the school and students. Program providers or researchers can also speak in the classroom, so they become visible and known by the students.

A7: “The first would be having strong relationships with the school. And that kind of leads you to having some relationship with the parents. I usually volunteer at the school that I work at, so the kids see me every day and they know me, and I think they’re more likely to really work together with their parents to sign consent. And when I say work, not necessarily manipulate, but they’re more likely to remember to pull this piece of paper out of their backpack, and go and ask their mom to read it because this is really important for this woman that work with, with a woman that helps at our school. Whereas if the kids don’t know you, they’re not as likely to really get the parents to look at the consent form. I think also when the parents come to pick up the kids, and it’s not every parent, but they see you there, they see you volunteering. Sometimes in classroom newsletters, the teacher will send home little blurb at the bottom: “We have a guest in our classroom this month. [This person] is here volunteering and engaging in some research dot dot dot”, so the parents get a feel of who you are, and that you are giving back to the community, not just taking.”

To build relationships between schools and parents, schools and researchers try to engage parents in school events such as pancake breakfasts, pizza nights, and literacy nights. Food is provided and shared at

these events. Food was described as cultural and social, brings people together, and is many times considered as an incentive.

A1: “It might sound really funny, but like the best participation, parent participation, they’ve ever had was when I’ve offered food. That sounds weird I know, but I had a pizza night at school once, and I met more families that way than any other thing I’ve tried and I sent home one form that said: “we’re having a pizza movie night” and we all went to a Blades game together, but I had the best turnout. Any time there is free food involved, this might sound silly, but our pancake breakfast and our pizza night were like the hugest hit, so I don’t know if there is a way to incorporate that into (laughter), I don’t know, that’s one way that I had lots of participation that was really something anyway.”

A2: “I guess things I’ll start with that, I think like the rest of us, I mean, when we have a meeting, I mean, food is always a nice thing, you know, it’s part of our, it’s something that’s pretty cultural touch for all of us when we get together and either celebrate or enjoy each other’s company a lot of times it’s around that, so we found that to be very successful to offer a supper a night parents don’t have to cook.”

John-Akinola and Gabhainn (2014) also found that being involved in events and activities and even being invited to the classroom involved parents more in schools.

Having someone at schools to be an “agent of change” helps. An agent of change is a person working at the school, who moves a program or research study forward by promoting it and assisting with barriers faced by families. In addition, this person is in constant contact with the program provider or researcher. This person can be a principal, a vice-principal, a community coordinator, or a teacher.

A8:” Working closely with the school staff is very very important. Having someone there and here, and usually ask the principal: “I know you’re busy, so who do you think would be the best person for me to follow up with?” So that if something is going wrong or right, you can always communicate with that person. And that person is usually somebody like a teacher, a school coordinator, somebody who’s in the decision making position.”

A4: “Again, we need that person [from school] to be on board and actually make some connections and then once you’re actually doing that, most parents just being contacted once. Again, if it’s not higher on priority list, or doesn’t necessarily, you know, come to the forefront for them, so you need somebody at that school who will keep going back to the parents: “remember this’s coming up. Remember this’s coming up.””

Similar findings about building relationships with schools were found by White (2012). She recommended working closely with someone at the school to help with logistical issues. Harrell, Bradley, Dennis, Frauman and Criswell (2000) also indicated that collaboration from someone inside the school is

helpful in navigating the way. Having the classroom teacher as this collaborator is especially important in improving the rate of participation (Frye et al., 2002). However, in spite of the valuable role that school administration may play in helping with the recruitment strategies, they do not significantly affect the numbers recruited (Esbensen et al., 2008).

4.3.2.2 Effective Communication

Communication is key in the recruitment process at all stages. Using the right communication strategy makes a difference in participation numbers. Communication plays a role in building relationships and trust, in delivering the message, in promoting, in encouraging, and in understanding the needs and the barriers of the target population.

A8: “Relationships and communications are the biggest things to do it. It is not really the resources, it’s the communication let you do it.”

According to the key informants, communications to recruit parents and their children is better when it is:

- personal or face-to-face (the word “shoulder tapping” was used by more than one key informant).

They indicated that face-to-face communications works better to recruit parents.

A2: “I think probably the best way that we do is really face-to-face, home visits, one-on-one interaction, maybe catching parents in the hallway and explaining what we’re doing.”

A6: “Sometimes our school staff, especially our community coordinators for example, will just shoulder tap families, and say: “hey, I know that you’re busy, you’re a student, you got three kids, maybe a single mom, here’s an opportunity for you.” And that personal invitation really helps with recruitment.”

A7: “And I think when you have that face-to-face connection like a teacher might have, parents it’s more in front of their mind to think about it more.”

- continuous (at different times acting as reminders and follow-ups).

A1: “Most of the times, like I’ll know that these kids have an activity Thursdays so on Thursday during the day I’ll make sure to kind of look at, like trying to find them in the hallway like: “Hey, activity tonight! I may stop tonight to watch your rehearsal” Something like that. . . like trying to remind them”

A5: “I find what’s the best way to recruit parents is to, not like a nagging, but to, you know, call them, introduce yourself, and then call them again to remind them.”

- uses a variety of methods/channels of communication (those methods can be written or verbal using phone or meeting the person face-to-face or both).

A2: “information. information. Information. like making sure that the parents know what we’re doing why we’re doing it, and sometimes that’s not well served by a letter or a newsletter that we send home. Sometimes, it’s a phone call or things like that, so the more they know about it, the more I think they’ll have a better chance of showing up.”

A3: “Obviously, we try to give lots of communication for different events, so will use newsletters, sometimes phone calls, sometimes center voices is a phone system where we send a mass message that to make sure they get the message.”

A5: “we were specifically talking to the parents directly, and sending information home. I’ll send information home, and then talk to the parents about it as well, and talk to the students as well and get the students excited about it, and I find a lot of times if the students are excited about it, they’ll share it with their parents, and their parents will get on board.”

This was also documented by Cline et al. (2005) effort in recruiting school children in their study and in contacting parents.

- positive (positive reinforcement and encouragement).

A1: “when you kind of let everyone know what’s kind of happening like for example I’ll go into a class and say: “Did you know that so and so won their hockey game last night?” And I say it in front of everyone and the teacher so then we can get everybody on board being like: “Hey, good job on your hockey game or whatever” Who knows? Maybe there were not planning on going to the next one, and now maybe they will because they got that positive reinforcement. So yea, being here just kind of talking to the kids about it as much as I can trying to open communication with the families I guess will be the big strategy.”

- clear (uses simple language, explains the rationale and the relation to participants).

A7: “making sure that we are communicating our intentions in a way that is understandable to them, so consent forms that are short and concise and help them understand in lay terms what is they’re going to be consenting instead of big long forms with lots of vocabulary that they might not be familiar with, that sort of things.”

- starts with children (when children are excited about a program or a research, they will tell their parents about it).

A2: “Sometimes, sometimes, it’s good for the kids to be our starting point. I guess what I mean is the kids sometimes they are the ones will motivate the parents or so. For example, when we have literacy nights. We make sure that we make it very attractive for the kids, you know, as well as being useful for the parents, but the kids see that attraction, whether be prizes, or again, a chance to play with their peer group and things like that. They’re going to want to go. They’re going to nag their parents until, you know, until the parent give in and come, and it’s just getting them

through that door, and that's the biggest part. Also sometimes the kids are the hook to get them in sometimes."

A5: "talk to the students as well and get the students excited about it, and I find a lot of times if the students are excited about it, they'll share it with their parents, and their parents will get on board."

- includes active listening (listening to school staff and to families to find out their struggles).

A8: "listen to the people you are working with, and to learn a lot about them, and see what're their struggles, and how do people handle them, so that you can make some of those decisions help too."

4.3.2.2.1 Promoting the Benefits of Participation

An important strategy is communicating the rationale of a program or research study and demonstrating the relevancy and benefit of participation to children and their families. Program providers and researchers should communicate the proposed program or research, its rationale, and the benefits clearly to the target population. They need to communicate to the school board, school administration and staff, and to parents and children. This will encourage schools to approve the program or the study. It will also encourage families to take part in programs and research.

A5: "I think a lot of our families just need, I know I keep repeating it, understand the rationale of it, and the benefits, you know, and I think that's the main thing, like to understand how it'll benefit them, especially their children, because they want their children. I mean all of them love their children and they want what's best for them ultimately."

A6: "helping them [principals] to understand whether there's value or benefit in accessing a particular program I think may have to do with the fact that sometimes programs that come through the context of the school might be, if not suspect, at least not valued as much. If there is a broker that can help to emphasize the benefit of the programs and build on the currency of trust to invite the families and children in, I think that has a lot to do with how what the uptake will be like."

4.3.2.2.3 Prizes and Incentives

All key informants who conduct research with schools mentioned that prizes and incentives are a motivator of participation and can be used as a recruitment strategy. Incentives are defined as "something that makes you want to do something or to work harder, because you know that you will benefit by doing this" (Macmillan Publishers Limited, 2017). Incentives also help to cover costs that can be associated with participation such as transportation, daycare, registration, and materials if needed.

Key informants mentioned examples of incentives they have used in the past with their recruitment endeavors such as bus transfers, food, grocery or restaurant gift cards, and university t-shirts or small items as a tangible reward. One Intangible reward example mentioned was giving children extra play time with their peers.

A2: “We make sure that we make it very attractive for the kids, you know, as well as being useful for the parents, but the kids see that attraction, whether be prizes, or again, a chance to play with their peer group and things like that.”

A4: “So trying to reduce barriers like transportation, childcare, cost of meals that kind of thing, but incentives sometimes have helped as well. If you could provide Good Food Box coupons or gift certificates of the Good Food Junction or this kind of things. Providing incentives and somehow showing people how relevant to them and how they might benefit from it is a huge piece as well. If you can communicate that in the first place without compromising your research at all. If you can show people how it might be a benefit to them, we found that has helped people participate in the past.”

A7: “Incentives, and I guess we have used incentives before with teenagers when we were doing interviews on body weight, health eating and exercise, we gave them a gift card of a healthy food vendor, so, and too it’s very close to their school, for Booster Juice and Subway. One can argue those aren’t the healthiest choice, but instead of giving them a gift certificate of fast food, that’s about as good as you can get, and it was close, which they needed. And I think that really helped get the teenagers to enroll, so I am wondering if for the parents, there could be an incentive to enroll their children like gift card to Super Store or Extra Foods or something, but you’d have to look at the ethics around that, and whether that card goes to the parents or whether it goes to the child who’s engaged in the program. I am not sure, but I think incentives go a long way, and maybe a ten or twenty dollar gift card doesn’t make a big deal to you and I, but for something living in a low socioeconomic status situation, that’s a really big incentive for them to sign the consent form, and to help their children going to this program more, if it’s a family program, more in the family. So, yea, I would, I think that incentives is important as long as it’s done within the boundaries of ethical behaviour.”

Incentives or prizes can also be used as a motivator for bringing consent forms back.

A8: “One of the things we did in another study we did is when we wanted to get the consent forms back, we had a draw. So we had a draw for Huskies shirt, and we had a draw for the U of S, and we got it, the students did. Now, I have grad students on the other hand, who did the same draw, and for the baseline study, she had no problem, but when she got to the next part of it, she didn’t do a draw or anything, and the students just didn’t get excited. So, we found that if there’s some incentives, and if the school is really behind it, then it works. If the students had to do it themselves, then it’s a little bit more challenging.”

Esbensen et al. (2008) also offered incentives to students and teachers for returned consent forms.

4.3.2.2.4 Monitoring and Barrier Reduction

According to key informants, recruitment is not just a one-step effort, rather it is a process. Monitoring of recruitment and communication processes is part the process. In recruitment efforts, if barriers or issues arise, they can be addressed in a timely manner.

When a barrier or issue arises during the recruitment process, the best strategy is to tackle it as soon as possible, according to key informants. Finding solutions or reducing the challenge would be helpful in moving the recruitment process forward. For example, if the program provider or researcher finds out that there is a transportation barrier for families that prevents them from participation, they can find a way to transport the families to and from the program.

A1: “We assist with things like transportation, equipment, registration, and nutrition. So basically any barriers that the families face in getting into these different activities then we try and assist with those barriers and make it so that the families can participate and the kids can participate.”

A4: “you have to reduce the barriers for parents to even get there in the first place. So, if there’s any amount of money to put in to incentives for people to come, if there’s any amount of money to provide some transportation and childminding, that’s all I can suggest as possible ways to get people to come out.”

A8: “I think what we’ve done is you may change strategies at different points. For example, if I’m in a school, where I know from the principal that they have transient population, then you may change a bit the strategies that you use in those schools. People want to be leaving. You may not be able to do the twelve weeks that you thought was a good idea for that school. It depends what is happening.”

Key informants working at schools mentioned that schools offer help to students to reduce barriers that could prevent them from participating in school programs. They offer transportation to events, meals or snacks, texting instead of calling if that is needed, help with registration when internet is not available to families, and daycare. Schools have also created programs and positions (e.g. Dream Brokers, Aboriginal student retention workers, and community coordinators) to work with families and students to reduce barriers.

A1: “So basically any barriers that the families face in getting into these different activities then we try and assist with those barriers and make it so that the families can participate, and the kids can participate. We work mostly with low income families, so under a certain..., they have to

make under a certain amount to kind of qualify for our program, but we do help families above that as well with community awareness type of things.”

4.4 Summary

Four children participated in phase 1 interviews on their experiences before, during, and after Kids Kitchen program. No parent participated in the parents’ interview. Children who participated had some commonalities. They all had 1) prior food-related experiences, 2) various learnings at the program 3) confusions about some of the information, 4) an adult’s influence, 5) dependence on adults in food-related activities, 6) a positive Kids Kitchen experience, and 7) applied at least one skill learned at the program at their homes.

Eight key informants participated in phase two interviews on the challenges of recruiting children and parents in the school system and the strategies to prevent, reduce, or overcome them. Themes were categorized into two categories: recruitment challenges and recruitment strategies. Recruitment challenges were: 1) formal recruitment process, 2) reaching out and recruiting parents, which included availability and priorities of families, 3) communication message and approach, 4) views on institutions and research, accessibility issues, and 5) transportation limitation. Recruitment strategies were: 1) building relationships, 2) effective communication, 3) promoting the benefits of participation, 4) prizes and incentives, and 5) monitoring and barriers reduction.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study started with exploring the knowledge, skills, and eating behaviours of children after participating in a Kids Kitchen program. Qualitative interviews with children and their parents were planned. After a low number of participation from children and no parent participants, another study phase was proposed. The second phase explored the challenges of recruiting children and their parents for programs and research studies and the strategies to prevent or overcome them. Key informants experienced in schools were interviewed.

This chapter first addresses each research question followed by a summary of major findings, recommendations, limitations of study, future research ideas, implications for practice, and lessons learned as a researcher.

5.2 Research Questions

5.2.1 Phase 1: Children's Nutrition Knowledge, Skills and Eating Behaviours After Participating in a Cooking Program

With a limited number of participating children (N=4) and parents (N=0), research questions were answered preliminarily. Data was not enough to answer some of the questions.

5.2.1.1 Research Question 1

What knowledge on safe food handling, kitchen safety, and food preparation do children learn after participating in the Kids Kitchen program?

From the few interviews conducted, it would appear that participants gained knowledge from participating in the Kids Kitchen program. Participants were able to state what they learned. However, given the low numbers participating and the problems the participants had with responding to interview questions, these findings must be considered preliminary. Further research is needed to determine the effect of this program on knowledge gained.

5.2.1.2 Question 1.1

How do the children use this knowledge in the home setting?

Participants indicated that they used some of the knowledge and skills learned at the program. Specifically, they used knives safely and considered food safety rules when preparing food at home. As before, these findings suggest that the Kids Kitchen may be successful in getting children to apply what they learned at home.

5.2.1.3 Research Question 2

What food skills do children learn after participating in the Kids Kitchen program?

Kids Kitchen program focused on teaching food-related skills. Participants talked about skills they learned the most like cutting different kinds of vegetables, grating cheese, measuring solid and liquid food ingredients, mixing foods in a pot, reading and following new recipes (pizza, salad, chicken tortillas, spaghetti and sauce, and bean soup). They also learned about using the stove and the oven, washing dishes, and cleaning the kitchen after using it. From the interviews, it was clear that food skills were a main focus of the Kids Kitchen program and children learned many of them.

5.2.1.4 Research Question 2.1

How confident do the children feel about their food skills after participating in the program?

Participants felt that they gained more confidence about their food skills. However, they did not feel confident being alone in the kitchen. They felt they needed parents' help. From the few number of participants interviewed, it seemed that Kids Kitchen played a role in improving participants' food skills but not to the point of becoming independent in the kitchen.

5.2.1.5 Research Question 2.2

How do children use these food skills in the home setting?

Participants indicated that they used some of the skills they learned at Kids Kitchen at home. They used the recipes from the cookbook given to them. Participants also indicated that they helped their parents in the kitchen with new food skills (e.g. grating cheese). Participants still felt the need to have someone to help when preparing food

5.2.1.6 Research Question 3

What involvement do children who participated in the Kids Kitchen program have in the home with regard to meal planning, food shopping, and food preparation?

Participants had been involved in some food-related activities before the Kids Kitchen program. After the program, nothing was mentioned regarding meal planning and food shopping as a result of the program.

Some participants chose to make some recipes they learned at Kids Kitchen. After Kids Kitchen, participants were involved in some food activities at home like cutting vegetables, grating cheese, using the stove or the microwave, and preparing some of the meals they learned at the program. From the interviews, the program resulted in slight involvement in food-related activities, but it was not clear if that was different from their involvement before the program.

5.2.1.7 Research Question 3.1

How did the children's involvement change as a result of participating in the program?

Participants' involvement slightly increased after their participation in the Kids Kitchen program, but this was not clear from interviewing only four children. Those children had some food-related activities involvement before Kids Kitchen and it was similar or slightly higher after Kids Kitchen.

5.2.1.8 Research Question 4

What changes occurred in the children's eating behaviour at home after participating in the Kids Kitchen program? In other family members?

Generally, there were no changes in participants' eating habits as a result of the program from the few interviews conducted.

5.2.1.9 Research Question 5

What were/are the challenges and helps for children to apply what they learned in the Kids Kitchen program at home?

The challenges that participants had after Kids Kitchen to apply what they learned were not having the help they needed every time they were in the kitchen. They still depended on their parents to help them in the kitchen. Other helps included having access to recipes and ingredients and knowledge about food and kitchen safety rules.

5.2.1.10 Research Question 6

How do the parents/caregivers/guardians of the children who participated in the Kids Kitchen program view their child's experience in the program and their contributions at home related to food and nutrition?

There were no parent participants to obtain their views on their children Kids Kitchen experience. However, some parents seemed supportive from being with their children at the interview and reminding them about their food-related activities involvement.

5.2.2 Phase 2: Recruitment Challenges and Strategies in the School System

5.2.2.1 Research Question 1

What are the challenges in recruiting elementary students and their parents to participate in programs and evaluation/research?

Key informants indicated several recruitment challenges. These challenges were the formal nature of the recruitment process at schools that needs to pass multiple points to reach students. Reaching parents and recruiting them was also emphasized as another challenge. Availability and priorities of families, communication message and approach, negative views on institutions and research, accessibility and transportation limitation were also mentioned by the key informants. Understanding these challenges may help in reducing them when recruiting children and parents in the school system.

5.2.2.2 Research Question 1.1

What are the reasons for these challenges?

Reasons for recruitment challenges were also indicated by key informants: 1) The perception or interest on the proposed research and program at each level in the formal process of recruitment at the school system (i.e. superintendent, principal, community coordinator, teacher, and parent). 2) The factors affecting people at each level making their decisions (e.g. how busy they are at the time). 3) Written communication may not be reaching home or may be difficult for parents to understand, due to limited education or language abilities. 4) Parents might negatively view the program or research the experience, the person, or the institution due to historical or contextual reasons. Aboriginal and immigrant populations may be skeptical or more hesitant to take part of programs and research in schools. 5) Poverty and low socioeconomic status play a role in reducing accessibility to some programs and research participation for cost covering or accessing transportation. It was clear that there are some underlying reasons for the challenges that families have to participate in programs or research studies.

5.2.2.3 Research Question 2

What are the strategies and approaches to prevent or overcome these challenges?

Strategies used and suggested by key informants to prevent, reduce, or overcome recruitment challenges were: 1) establish and build relationships. The relationship should be built at all levels of recruitment (i.e. superintendent, principals, teachers, school staff, parents, and children). This strategy is continuous and helps with the challenge of intimidation and mistrust. 2) Effective communication strategy was described by key informants as is best when it is personal (face-to-face), continuous, uses a variety of methods, positive, clear, starts with children, and includes a lot of listening to schools and families. The rationale and benefits of participation should be brought forward in the communication process. 3) To cover costs and as a source of appreciation, offering incentives and prizes was a highly-suggested strategy. 4) monitoring recruitment, troubleshooting challenges, and barriers reduction prior to or as they occur were suggested as strategies along the recruitment process.

5.3 Major Findings

5.3.1 Phase 1: Overview of Major Findings

Preliminary findings from Phase 1 indicate that participants learned new food knowledge and skills the at Kids Kitchen program. However, children still depended on adults in applying learned food-related knowledge and skills. Findings are considered preliminary due to the small number of participants.

5.3.1.1 Kids Kitchen was a positive enjoyed experience for children

Children who participated in the interviews were positive about the Kids Kitchen program. They felt that it was fun and interesting. They liked the structure and activities of preparing recipes and other paper activities (e.g. food safety activity sheet). They did not dislike any major part of the program, except some found the behavior of a few children inappropriate (e.g. running around and eating with their mouth open).

5.3.1.2 Children learned at least one new food-related knowledge or skill from Kids Kitchen

From the variety of food-related topics on kitchen safety, food safety, recipes, food measures, and Canada's Food Guide, participants recalled the information learned at Kids Kitchen. Regarding food-related skills, children learned and practiced them at the program. They about learned reading food packages, washing hands before touching food, following a recipe, grating cheese, making a meal or a snack, using the stove safely, measuring food ingredients, cutting vegetables, and washing dishes. Different skills were learned by different participants because tasks at the Kids Kitchen sessions were distributed among the group of participants.

5.3.1.3 Children applied at least one food-related skill after Kids Kitchen at their homes

Participants applied some of what they learned (e.g. knowledge or skill) at Kids Kitchen at their homes. At home, participants applied kitchen and food safety rules, and some tried making a recipe that was made at Kids Kitchen or was in the cookbook that was distributed to participants at the last session of Kids Kitchen.

5.3.1.4 Children feel dependent on a parent or an adult in food-related activities

Participants did not feel fully confident in their food and cooking skills and felt they needed help from others, specifically parents. These children expressed their interest in food and cooking as coming from adults, mainly parents.

5.3.2 Phase 2: Key Informants Interviews Findings

In phase 2 of the study, recruitment of children and their parents to programs and research in the school system was confirmed to be a challenging process. Strategies can be used to prevent or overcome them. Challenges to recruitment come from the formal process of accessing and recruiting in schools, parents limited involvement, communication methods and messages, views on institution and research, and accessibility issues. Recruitment strategies start with building relationships, effective communication, offering prizes or incentives, and monitoring the process and reducing barriers.

5.3.2.1 Recruitment in schools is a formal process

To access school children and their parents, program providers and researchers need to go through a process to reach children. This process starts from getting approval from the school district's board's superintendent. The request is then communicated to school principals. Principals seek consent from their school staff or classroom teachers, and parents. This process requires responses from each level of access. It also requires time and several follow-ups, and depends on the perceptions and priorities at each level.

5.3.2.2 Parental involvement in school is limited

Reaching out to parents as gate-keepers to recruit children or recruiting them is another challenge. Parents give consent to their child's participation. In some cases, connecting with parents and getting response from them is challenging. This challenge can be due to reasons related to parents perceived self-efficacy, socioeconomic status, priorities, and their family's values and interests.

5.3.2.3 Communication messages and approach can be a barrier to recruitment

Written communication between schools and home is perceived to be an ineffective way to convey recruitment messages. However, it is the most common method of communication. Newsletters, letters, and other written materials from schools may not reach home, may be difficult to understand, or may not lead to a response.

5.3.2.4 Views on institutions and research sometimes come from intimidation and mistrust

Parents and families may have negative views regarding institutions such as schools, universities, government and other organizations. They also may have negative views on research and evaluation. These negative views can lead to intimidation or mistrust that prevent families from taking part in programs and research. The reasons can be historical or contextual. Minority groups, heavily-researched populations, and unfamiliar places, people or experiences can be barriers to recruitment.

5.3.2.5 Accessibility issues for families limits participation in school programs and research

A family's limited available resources may prevent them from taking part in some programs or research. They may not have enough money to cover associated costs (e.g. registration fees, transportation, required tools or uniform, and childcare fees). Phone or internet may not be available to them. Childcare and transportation are two barriers as well.

5.3.2.6 Building relationships is key to recruitment at schools

One of the key strategies to recruitment is building relationships. Relationships are built at many levels: school board, principals, school staff and teachers, parents and children. Meeting with these groups to discuss program and research proposals and answer questions are part of that process. Being accessible and familiar are also key to build the relationship and trust. Events to engage parents and to create positive conversations are used by schools as a strategy to build relationships with parents and children. A person from school who can support the program or research study is helpful.

5.3.2.7 Using effective communication approaches and messages with explanation of rationale and benefits of participation

Communication is another key strategy for recruitment. Communication is important to build relationships. Effective communication was described by informants as 1) being personal or face-to-face, 2) being continuous, 3) using a variety of methods (written, verbal), 4) being positive, encouraging, clear and simple, 5) being focused on the children, and 6) including active listening. Program providers and researchers should promote the benefits of participation to families.

5.3.2.8 Offering incentives and prizes supports recruitment efforts

Recruitment can be promoted by offering incentives and prizes. They can be small monetary gifts or simple gifts that are appropriate for different ages. They can also help or support families to reduce their accessibility barriers (hunger, childcare, transportation). Ethics should be considered in this strategy to ensure safety of participants and integrity of research. Incentives need to be approved by the school board and school principals before they are used for recruitment. Some schools may not approve the use of incentives for research participation.

5.3.2.9 Monitoring recruitment process and reducing barriers to improve recruitment

Recruitment is a continuous process that needs to be monitored. This strategy can help in tackling recruitment issues as they arise and reduce barriers. School staff and researchers provide help and support as they find needed by families to participate.

5.4 Feedback and Recommendations

5.4.1 Feedback to CHEP

Findings from the children interviews were considered preliminary, therefore, feedback based on those findings is provided to CHEP about Kids Kitchen program.

5.4.1.1 Include more focus on food and nutrition knowledge

The Kids Kitchen program focusses on skills and hands-on activities. Participants practised some of these skills at home. However, children were not able to recall knowledge learned about food groups, food safety, and nutrition.

5.4.1.2 Conduct a pre- and post- test for Kids Kitchen groups

Many participating children were involved food-related activities before the program. Therefore, to find the program's impact on children's food knowledge and skills, a pre-test and post-test comparison may indicate the difference. A control group study may also show the impact of Kids Kitchen on participants.

5.4.1.3 Maintain the structure of Kids Kitchen

Children liked the Kids Kitchen program. Positive feedback on the program materials, facilitators, volunteers, activities, food, and atmosphere was received. It is recommended to keep the format of the five sessions-

5.4.1.4 Involve parents/caregivers

Parents/caregivers were not the focus of this study. However, CHEP may wish to investigate how best to use parents/caregivers in its Kids Cooking Program. Some examples might be: having parents help revise and deliver the program, asking parents for feedback and planning parent/children activities to do at home.

5.4.2 Recommendations to program evaluators and researchers with the school system

5.4.2.1 Understand the context of the school system

The school system and school environments have unique characteristics. Learning and understanding them is helpful as a starting point for the development and implementation of the recruitment plan and process.

5.4.2.2 Develop a recruitment and a troubleshooting plan ready before recruitment (be proactive)

The recruitment process should start with a plan for recruitment. This plan outlines the methods and strategies of recruitment, the materials for recruitment, and the strategies to use if challenges arise.

5.4.2.3 Establish a strong relationship with schools and school children and their parents

Building relationships with all stakeholders (superintendents, principals, school staff, parents, children) key to successful recruitment. Volunteering at school is a way to build relationships and to give back to the school.

5.4.2.3.1 Work directly with (a) person(s) within the school

When recruiting at schools, a person or a group of persons who work in the school environment might help navigate the way through the system and the specific school. This also helps with the recruitment efforts. These person(s) can provide guidance and advocate for a program or research study. These person(s) can be a principal, a vice principal, a community coordinator, or a teacher.

5.4.2.4 Develop recruitment communication strategy

The method of communication is crucial in getting participants' attention and interest. Communication starts by developing the communication strategy with schools, parents, and students. Meeting with school board superintendent, principals, and school staff and answering their questions is recommended. Meeting with parents face-to-face, if feasible or during a school event, can be helpful. Attractive communication methods with children to get them interested in participation can be a way to start. Designing the communication materials in a clear and concise manner is always recommended.

5.4.2.5 Provide incentives and prizes as feasible

If the program or research study has funding to provide incentives for participants, it may help with recruitment efforts. Incentives can help reduce barriers and cover costs of participation. A program evaluator or researcher needs to use incentives ethically and to check if incentives are approved to be used in the school.

5.5 Limitations and Challenges

This study was faced by several limitations and challenges. Only 16 children participated from two elementary schools in Saskatoon at the time of the evaluation. The low participation in Kids Kitchen limited the study's participation rate. Only four children agreed to participate in the study from one Kids Kitchen group from one school. A few parents showed interest in participating, but no parent actually participated. The low participation number did not allow for obtaining enough data to draw conclusions about the Kids Kitchen program and what participants gained in terms of nutrition knowledge, skills, and behaviours.

The study also planned to have a pre-test to obtain information on children's food knowledge and skills prior to the program and compare that to the program gained knowledge and skills. It was not feasible to conduct such test at the schools before the program because of time conflicts. Questions on knowledge and skills before the program were asked at the interview, and this was likely confusing for some children.

At the children's interviews, it was clear that children were not fully comfortable with answering questions in terms of remembering retrospective information and events. Asking them about the time before Kids Kitchen, during Kids Kitchen, and after Kids Kitchen at least a month after the end of the program was not easy for most of them. Some interviews took place after two or more months due to recruitment challenges and parents' schedule arrangements. Many of them were clearly confusing times, forgetting events, and feeling that they needed affirmations for their answers.

At three interviews, a parent was present with their child. The reasons were to sign the consent form and to wait with their child to provide transportation after the interview. This affected the interview notably when two of the parents tried to remind their child about their food-related activities before and after Kids Kitchen. Children were also looking for approval from their parents. Their answers may have been affected by the parent presence. This raised the question of social desirability bias, where some children may have provided answers they thought would be acceptable to the researcher or parent.

Due to the low interest and no parent participants in this study, their views and perceptions of the Kids Kitchen program were not captured. The final research question from phase 1 was not answered.

Limitations from phase 2 were in the wide range of scope of practice of the key informants and the diversity of their roles and focuses. This made it challenging to merge focused themes. Some key informants have never recruited children nor parents for research studies. Rather, they only recruited children for programs. Some key informants have never recruited parents.

There was no differentiation between recruitment for research or program in the research questions and the interview guides, and therefore in the responses of key informants. The scope of work of key informants is different with either program recruitment or research recruitment at schools.

Teachers who have direct contact with children on the daily basis were not recruited as key informants because they had no role in the Kids Kitchen program. They may have another perspective on the challenges and strategies to recruit children and their parents. In addition, parents' perspectives on recruitment challenges were also not captured in this study.

5.6 Future Research

Evaluation of programs is an important and valuable part of programs. Evaluation research can be done on different parts and times of programs using a variety of methods. Future research to evaluate Kids Kitchen program could be done by planning a comprehensive evaluation of the process and the impact of the program. Process evaluation could use methods of observation and interviews with program coordinators, program facilitators and volunteers. Impact evaluation could use a wide variety of methods: quantitative, qualitative, and mixed methods to obtain data about the program and how it is achieving its goals and objectives. Conducting pre-and post-tests, experiments, and quasi experiments, and using a control group this sentence is incomplete. Evaluation could also use observation and focus group methods. A study of the long-term impacts of the program would be useful as would the study of social

desirability. Participatory research could engage school communities and stakeholders and provide rich data on cooking programs.

This study explored key informants who are involved in recruitment in schools. Therefore, exploring parents' perspective on the challenges they encounter to be involved in their child school programs, activities, and research initiatives and their suggestions to improve participation provides another perspective to program providers and researchers. Additionally, obtaining teachers' perspective on students' and parents participation. Teachers play a role that is close to students in their school.

5.7 Implications for Practice

This study with its two phases brings implications to practice in the health and nutrition field in the areas of program evaluation and children and parents' recruitment in the school system. Evaluation is an important part of any program. Evaluating the impact of a program is important to assess program effectiveness and goals achievement and inform providers about what needs to be done for future program offerings. Evaluation uses different methods: qualitative, quantitative, and mixed methods. Qualitative interviews with participants provide their perspectives, experiences, and attitude.

Hands-on cooking programs for children teach children food-related knowledge and skills that can be life skills. A public health focus on well-designed cooking programs for children is needed to empower children with these skills. These programs are needed, especially with the decrease of food skills teaching at home and with the nutrition-related diseases and conditions.

To conduct research or evaluation study in schools, it is important to learn about the school system and the recruitment process there. It is also crucial to understand the clear and the underlying factors that have an effect on people's participation in a program or a research study. Having a clear recruitment plan and strategies help with recruiting participants.

5.8 Lessons Learned as a Researcher

As a researcher, there were many lessons learned learning, planning, and conducting this study. This section could help future researchers in the community and in qualitative research.

Research is not a linear process. Familiarizing oneself with the processes of learning and designing the study, the methods, and the tools is a process where most learning happens by doing. It is helpful to reflect and be patient during the process. Challenges and obstacles are inevitable.

Qualitative research depends on the researcher in many ways. The researcher collects data, which requires skills of being able to find answers to the research question. The researcher also transcribes, analyzes, and interprets data. That involves the researcher in the data in every step and is considered as an important research tool. Understanding oneself as a researcher and identifying one's philosophy and biases are important for conducting qualitative studies.

5.9 Conclusion

The evaluation of the Kids Kitchen program was limited by the small number of participants. Findings can only be considered as preliminary; more research would be needed to make conclusions. The exploration of challenges to recruitment suggest the importance of building relationships, using effective communication strategies, understanding the formal multilevel recruitment process and communicating appropriately.

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APPENDICES

Appendix 1: Phase 1 Invitation Letter

Appendix 2: Phase 1 Interest Form

Appendix 3: Phase 1 Consent Form

Appendix 4: Phase 1 Letter of Assent

Appendix 5: Phase 1 Pre-test Questionnaire

Appendix 6: Phase 1 Child's Interview Guide

Appendix 7: Phase 1 Food-related Activities Photo Cues

Appendix 8: Phase 1 Demographic Profile

Appendix 9: Phase 1 Parent's Interview Guide

Appendix 10: GSCS Research Study Approval

Appendix 11: GSCS Incentives Disapproval

Appendix 12: Phase 2 Invitation Letter

Appendix 13: Phase 2 Consent Form

Appendix 14: Phase 2 Key Informants Interview Guide

Appendix 1: Phase 1 Invitation Letter

March 17, 2015

Dear Parent/Guardian,

My name is Noura Sheikhalzoor and I am a Master's student in nutrition at the College of Pharmacy and Nutrition at the University of Saskatchewan. I have received approval from the school board and the principal to send you this letter.

I would like to invite you and your child to be part of my Master's research project. This project is about the Kids Kitchen program in which your child participated. The purpose of the study is to explore the nutrition knowledge, skills, and behaviour of students after participating in Kids Kitchen program.

The project has two parts:

- A 45 minute interview with your child at school 4-6 weeks after the program; and
- A 45 minute interview with you scheduled at your convenience 4-6 weeks after the end of Kids Kitchen program.

You and your child can both participate or you may wish to just have your child participate.

Involvement in the study is voluntary and will not affect you or your child's position in school or further participation in programs.

All of your and your child's information and data is confidential and no names will be shared with anyone outside of the research team.

If you have any questions about the study, please feel free to contact me at: (306) 491-2577 or my research supervisor, Dr. Shawna Berenbaum at (306) 966-5836. We would be happy to answer your questions.

If you are interested in participating, please fill out the attached form. Your child can bring this form to Ms. Pechawis, the community school coordinator. I will contact you to discuss the study details and your available times.

Sincerely,

Noura Sheikhalzoor
cc. Dr. S. Berenbaum

Appendix 2: Phase 1 Interest Form

Are You Interested?

If you or your child are interested in participation in this study, please check the appropriate boxes. Send this form with your child to the community school coordinator, Ms. Pechawis.

* Yes, we are interested in participating in the study in the following way(s) (check all that you are interested in):

- * Child one-on-one interview
- * Parent one-on-one interview

* We would like more information before we decide to participate in the study.

* No, we do not want to participate in the study.

Parent/Guardian's Name: _____

Child's Name: _____

Contact Number: _____

Thank you!

Please return this form to

Appendix 3: Phase 1 Consent Form

Kids Kitchen

Consent Form

Project Title: Children's Nutrition Knowledge, Skills, and Behaviour after Participating in a Cooking Program

Researcher: Noura Sheikhalzoor, M.Sc. Candidate in Nutrition, Division of Nutrition and Dietetics, College of Pharmacy and Nutrition, University of Saskatchewan, (306) 491-2577, noura.sheikhalzoor@usask.ca.

Supervisor: Dr. Shawna Berenbaum, Division of Nutrition and Dietetics, College of Pharmacy and Nutrition, University of Saskatchewan (306) 966-5836, shawna.berenbaum@usask.ca.

Purpose of the Research:

- The purpose of this study is to explore the nutrition knowledge, skills, and behaviours of children after participating in the Kids Kitchen program.

Procedures:

- The study includes:
 - A 45 minute interview approximately with your child, and;
 - A 45 minutes interview with you, if you are interested.
- The interview with your child will take place at your child's school.
- You have a choice of the school or a public library in the city, and you can choose the most appropriate time that works for you to be interviewed.
- You have the option to be with your child when he/she is interviewed.
- **If you choose to be interviewed, you will be asked to fill out a short demographic profile questionnaire that will help in describing the study participants.**
- The interviews will be recorded using a recorder. You or your child can choose to have the recorder turned off anytime you wish.
- If you choose to, you will have an opportunity to read your interview transcript.
- Please feel free to ask any questions regarding the procedures and goals of the study or your role at any point during the study.

Potential Risks:

- There are no known or anticipated risks to you or your child by participating in this study.
- Your child may feel uncomfortable during the interview if he/she has not had interview situation before, but the researcher will take steps of getting to know your child and reducing any kind of possible discomfort to him/her.
- You and your child have the right not to answer any questions that you are not comfortable with.

Potential Benefits:

- This study will help understand the learned knowledge and skills from the Kids Kitchen program.
- It will also help CHEP decide if any change in the future Kids Kitchen is important.
- This study will be part of the research about the results of teaching cooking skills to children programs.

Confidentiality:

- Precautions will be taken to protect the confidentiality of your and your child's information.
- Data will be shared in presentations and written reports, but will not be associated with any names or personal data.
- Data will be presented in an aggregate form. Direct quotes may be presented but without names associated to them.

Storage of Data:

- During the study period, data will be stored safely with the researcher, where paper documents will be secured in a locked cabinet. Recordings and other computer files will be protected by a password.
- Data will be stored safely for up to 5 years after the end of the study with the research supervisor at the University of Saskatchewan.
- When the data no longer required, the data will be destroyed.

Right to Withdraw:

- Your participation is voluntary, and you and your child can answer only those questions that you are comfortable with answering. You may withdraw from the research project for any reason, at any time without explanation or penalty of any sort.
- Whether you choose to participate or not will have no effect on you or your child's position in school or in future programs offered by CHEP.

- Should you wish to withdraw, any data that you have contributed will be destroyed at your request.
- Your right to withdraw data from the study will apply until data has been pooled. After this date, May 20th, 2015, it is possible that some form of research dissemination will have already occurred and it may not be possible to withdraw your data.

Follow up:

- To obtain the final results from the study, please contact the researcher, Noura Sheikhalzoor, at: Noura.sheikhalzoor@usask.ca

Questions or Concerns:

- Contact the researcher(s) using the information at the top of page 1;
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board on December, 15th, 2014. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

Continued or On-going Consent:

- During the research period, consent will be obtained verbally from you and from your child for different study steps.

Your signature below indicates that you have read and understand the description provided.

“I have had an opportunity to ask questions and my/our questions have been answered. I consent to participate in the research project. A copy of this Consent Form has been given to me for my records.”

<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <i>Name of Participant</i>	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <i>Signature</i>	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <i>Date</i>
<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <i>Researcher's Signature</i>	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> <i>Date</i>	

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Appendix 4: Phase 1 Letter of Assent

Kids Kitchen Study

Letter of Assent

Dear _____ ,

My name is Noura. I am a student at the University of Saskatchewan. I would like to know what you have learned from the Kids Kitchen program. After the program, I will talk to you in person about the Kids Kitchen program.

After all that, I am going to write a report about the learning you had at the Kids Kitchen. I do not want to miss any information, so I will use a recorder to record our conversation. I will keep all papers and recordings in a safe place, and no one will know about them other than my study team.

You can choose not to be part of this project and that is okay. Also, you can leave it anytime you choose to do so.

If you are interested in being part of this project, please sign this form.

Thank you!

Your Signature: _____

My Signature: _____

Date: _____

If you have any questions, you can talk to your parents/guardians or to me.

My phone number is: (306) 491-2577.

Appendix 5: Phase 1 Pre-test Questionnaire

Kids Kitchen

- Before you start with the Kids Kitchen, I would like to ask you some questions to know a little bit about you.
- Answer all the questions the best way as you remember.
- Let me know if you have any questions.
- Have fun in the kitchen!

Name: _____ School: _____

1. Have you participated in the Kids Kitchen before?

* Yes

* No

2. If yes, how many times? _____

3. Are you involved in food preparation at home?

* Yes

* No

4. In the last week, how often did you help prepare food at home?

*Everyday

*2 times a week

*5 times a week

*1 time a week

*3 times a week

* I did not help prepare food before

More on the back of the page!

5. Check off the activities that you did in the past 6 months 1 or more times:

Before and After Food Preparation:	
<input type="checkbox"/> wrote a shopping list <input type="checkbox"/> read a food package <input type="checkbox"/> followed a recipe to make food <input type="checkbox"/> made a food dish without following a recipe <input type="checkbox"/> cooked food with others	<input type="checkbox"/> measured food using measuring cups and spoons <input type="checkbox"/> washed the dishes <input type="checkbox"/> cleaned up the kitchen bench, stove, or sink <input type="checkbox"/> washed hands before touching food <input type="checkbox"/> washed vegetables and fruits

Food Preparation Skills:	
<input type="checkbox"/> spread cream or butter or sauce on bread <input type="checkbox"/> wrapped tortilla or pita <input type="checkbox"/> poured liquid ingredients <input type="checkbox"/> used herbs and spices <input type="checkbox"/> cracked eggs <input type="checkbox"/> beat eggs or batter <input type="checkbox"/> grated cheese <input type="checkbox"/> peeled vegetables or fruits <input type="checkbox"/> cut vegetables using a knife <input type="checkbox"/> cut meat or chicken <input type="checkbox"/> mixed food using a mixing spoon or spatula	<input type="checkbox"/> opened cans <input type="checkbox"/> drained cans <input type="checkbox"/> mashed potatoes or other vegetables <input type="checkbox"/> crushed garlic <input type="checkbox"/> squeezed lemon <input type="checkbox"/> melted butter or margarine <input type="checkbox"/> baked cake <input type="checkbox"/> stirred food while cooking <input type="checkbox"/> rolled dough <input type="checkbox"/> greased pans for baking <input type="checkbox"/> boiled water

Use of Equipment:	Foods You Made:	Other: (please write them down)
<input type="checkbox"/> used the stove <input type="checkbox"/> used the oven <input type="checkbox"/> used a blender <input type="checkbox"/> used the microwave	<input type="checkbox"/> made sandwiches <input type="checkbox"/> made soup <input type="checkbox"/> cooked pasta <input type="checkbox"/> cooked rice <input type="checkbox"/> cooked meat or chicken	<ul style="list-style-type: none"> • _____ • _____ • _____ • _____

Appendix 6: Phase 1 Child's Interview Guide

Kids Kitchen Child's Interview Guide

Hello, I am Noura. Today, I am going to ask you some questions about the Kids Kitchen program. I came to your school to give you the invitation letter. We will sit and have an interview here for about 45 minutes because I want to find more about the learning you had at Kids Kitchen and how you used it. Let me know whenever you need a break. What about we get to know each other better? (I will share two facts about myself, and let the participant share 2 facts. "My favourite colour is green. I have 4 siblings." I then will ask him/her about their age).

- How many times have you participated in Kids Kitchen?

In this meeting, I will ask you about three points in time. One before Kids Kitchen, one during Kids Kitchen, and one after Kids Kitchen.

Before Kids Kitchen (Pre-test):

1. I have a group of pictures of some food-related activities. When I show them to you, you can tell me if you have done the activity before Kids Kitchen or have not.
(I will show pictures of food-related activities)
2. What were the reasons for joining the Kids Kitchen?

During Kids Kitchen:

3. How did you like the Kids Kitchen?
 - a. What did you like or enjoy the most?
 - i. What are the reasons that made what you mentioned enjoyable?
 - b. What did you not like or enjoy?
 - i. What are the reasons that made what you mentioned not enjoyable?
4. Tell me what you learned at the Kids Kitchen.
 - a. Probe on the Kids Kitchen main topics: kitchen safety, food safety, recipes, food measurements, and Canada's Food Guide. (knowledge)
 - i. How did you use these lessons at home?

- b. Probe with the Kids Kitchen food skills examples: read recipes, measure ingredients, peel vegetables, cut vegetables, open cans, use the blender, use the stove or oven or microwave, wrap a sandwich, stir/mix food, cook meat/chicken, or use pictures of food activities. (skills)
- c. Was there anything new to you?

After Kids Kitchen:

- 5. How much do you believe you can do what you learned in the Kids Kitchen at home?
- 6. Tell me about the food-related activities that you have been doing at home after Kids Kitchen.
 - a. Since the Kids Kitchen program, have you done any of the following: (I will use the pictures to ask about the specific activities if no free answer).
- 7. What makes it easy to do food-related activities at home?
- 8. What makes it hard to do food-related activities at home?
- 9. What changes, if any, have you made in the foods you eat after the Kids Kitchen? (probe with changes in food group choices: vegetables and fruit, grain products, milk and alternatives, meat and alternatives, or meals: breakfast, lunch, dinner, and snacks)
- 10. Is there anything else you would like to tell me about the Kids Kitchen?

Appendix 7: Phase 1 Food-related Activities Photo Cues



Reading Food Packages

1



Measuring Food

2



Washing Dishes

3



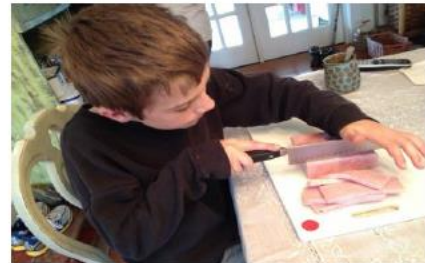
Cracking and Beating Eggs

4



Cutting Vegetables

5



Cutting Meat or Chicken

6



Using the Oven

7



Cooking Pasta or Rice

8



Using the Stove

9



Washing Hands Before Touching Food

10



Using a Blender or a Food Processor

11



Grating Cheese

12



13



14



15

Images from:

- 1) McConnel, C. for Toronto Star. (2014). Retrieved April 1, 2015 from http://www.thestar.com/life/food_wine/2014/08/22/food_dyes_consumer_pressure_for_natural_colours.html
- 2) [Boy measuring food]. (2010). Retrieved April 1, 2015 from <http://kindershoponline.blogspot.com/2010/12/teacher-gifts-cookies-in-jar.html#links>
- 3) [Girl washing dishes]. (2008). Retrieved April 1, 2015 from <https://www.sheknows.com/parenting/articles/805995/the-parenting-secret-that-creates-wellbehaved-kids>
- 4) [Children cracking eggs]. (2014). Retrieved April 1, 2015 from <http://itsysparks.com/easy-breakfast-ideas-kids/>
- 5) [Girl cutting vegetables]. Retrieved April 1, 2015 from <https://happyhealthylittleme.files.wordpress.com/2014/04/screen-shot-2014-04-16-at-8-53-37-pm.png>
- 6) [Boy cutting meat]. Retrieved April 1, 2015 from https://sureastheworld.files.wordpress.com/2013/05/img_2031.jpg
- 7) Hipolito, C. for The Globe and Mail. (2015). Retrieved April 1, 2015 from <http://www.theglobeandmail.com/life/food-and-wine/food-trends/hey-kids-whats-for-dinner-yes-you-can-teach-them-to-cook-their-own/article22311863/>
- 8) [Girl cooking pasta]. Retrieved April 1, 2015 from <https://smallseotools.com/tempimgs/901317211530145766.jpg>
- 9) [Boy cooking on stove]. (2012). Retrieved April 1, 2015 from <http://www.thedoctorinthekitchen.com/2012/10/>
- 10) [Boy washing hands]. Retrieved April 1, 2015 from <http://www.medicalnewstoday.com/articles/7543.php>
- 11) [Boy using blender]. (2015). Retrieved April 1, 2015 from <http://myhealthyhappyhome.com/wp-content/uploads/2015/01/kid1.jpg>
- 12) [Girl grating cheese]. Retrieved April 1, 2015 from <http://www.dairy.edu.au/discoverdairy/learning-resources/images/grating-cheese>
- 13) [Girl shopping for food]. (Retrieved April 1, 2015 from <https://www.makeandtakes.com/the-joys-of-meal-planning-with-kids>
- 14) [Boy making food]. Retrieved April 1, 2015 from <https://anothergranolamom.files.wordpress.com/2012/02/fill-tortilla.jpg>
- 15) [Girl following a recipe]. Retrieved April 1, 2015 from https://www.prepostseo.com/tmp_imgs/9169196781530144772.jpg

Appendix 8: Phase 1 Demographic Profile

Kids Kitchen

Demographic Profile

Thank you for participating in this study. Information asked in this form will help me in describing the participants in the study more accurately. The form is asking about the family's demographic information.

1. What is your age?

- * 18 – 24 years
- * 25 – 34 years
- * 35 – 44 years
- * 45 – 54 years
- * 55 – 64 years
- * 65 or older

2. What is your relationship with the child participating in the Kids Kitchen?

- * Mother
- * Father
- * Other: (please state) _____

3. Who does your child live with? Check all that apply.

- * Myself
- * My spouse or partner
- * My child's brothers and sisters
- * My child's other caregiver(s)
- * Other: (please state) _____

4. What is your employment status?

- * Full time (more than 20 hours per week)
- * Part time (less than 20 hours per week)
- * Unemployed or choose not to work

5. What do you do as a job? _____

6. What is the highest level of education you completed?

- * Some grade school
- * Completed grade school

- * Completed high school
- * Some post-secondary education (i.e. college, university, etc.)
- * Completed post-secondary education

7. What was your total household income before taxes during the past 12 months?

- * Less than \$20,000
- * \$20,000 - \$34,999
- * \$35,000 - \$49,999
- * \$50,000 – \$64,999
- * More than \$65,000
- * Choose not to answer
- * Don't know

Thank you!

Appendix 9: Phase 1 Parent's Interview Guide

Kids Kitchen

Parent's Interview Guide

Thank you for participating in this study. My name is Noura Sheikhalzoor, and I would like to ask you some questions about your child's participation in the Kids Kitchen program. This will take approximately 45 minutes. It will focus on three points in time with regard to Kids Kitchen.

Break the ice by asking about the weather and spring/summer plans.

Before Kids Kitchen:

1. What food-related activities was your child involved in at home before Kids Kitchen?
(Probe with food-related activities: shopping for food, following a recipe, measuring food, washing vegetables, cutting vegetables, opening cans, stirring food, grating cheese/vegetables, wrapping a sandwich, using the oven or the microwave...)
2. What do you know about Kids Kitchen?
 - a. What did you know about Kids Kitchen before your child's participation in the program?

After Kids Kitchen:

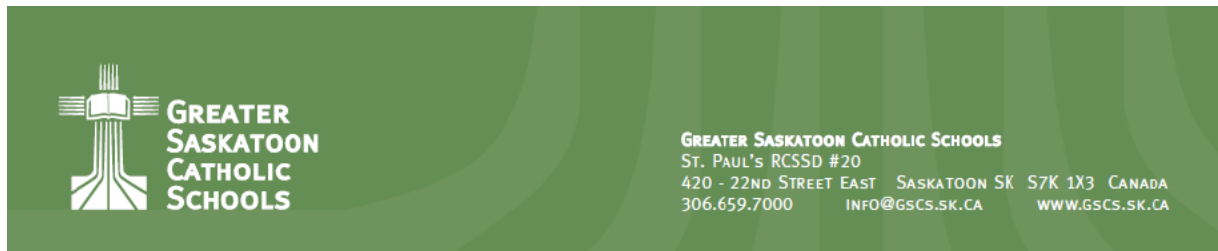
- b. What did you know about Kids Kitchen as your child's went through the program?
3. How has your child felt about participating in Kids Kitchen?
4. How did you feel about your child's participation in the Kids Kitchen?
 - a. What are the reasons that made you feel this way?
5. What did your child learn from Kids Kitchen?
(Probe with topics learned at Kids Kitchen: hand washing, kitchen safety, food safety, recipe reading, Canada's Food Guide, food skills)
6. What food-related activities has your child being involved in since participation in Kids Kitchen?
(Probe with food-related activities: shopping for food, following a recipe, measuring food, washing vegetables, cutting vegetables, opening cans, stirring food, grating cheese, wrapping a sandwich, using the oven or the microwave)
7. What changes, if any, has your child made in his/her eating habits since participation in Kids Kitchen?

(Probe with meals: changes in breakfast, lunch, dinner, snacks)

In Future:

8. On a scale from 1 to 5, while one being very easy and five being very difficult: How easy or difficult for you letting your child prepare a meal at home?
 - a. Can you explain your choice a bit more?
9. What would help your child becoming more involved in food-related activities at home?
10. What would make it harder for your child becoming more involved in food-related activities at home?
11. Is there anything else you would like to tell me about your child's experience at Kids Kitchen?
12. What is your role in the family regarding food-related activities?
13. Demographic questionnaire: This short questionnaire provides information to describe my study population and will not be used for any other purposes.

Appendix 10: GSCS Research Study Approval



February 1, 2015

Noura Sheikhalzoor, RD
M.Sc. Candidate in Nutrition
College of Pharmacy and Nutrition
University of Saskatchewan
104 Clinic Place
Saskatoon SK S7N 2Z4

email: nos653@mail.usask.ca

Dear Ms. Sheikhalzoor,

Thank you for your interest in conducting research within Greater Saskatoon Catholic Schools. I have received your application to research for the project entitled "*Children's Nutrition Knowledge, Skills, and Behaviour after Participating in a Cooking Program.*" You are approved to conduct research within the Greater Saskatoon Catholic Schools between February 1, 2015 and June 30, 2015 in the selected schools in the division which currently have a CHEP's Kids Kitchen Program being [REDACTED]

Feel free contact me and I will arrange access to research participants. We look forward to receiving a summary of your research findings upon completion of your study.

Please do not hesitate to contact me should you require anything further and all the best in this important endeavour.

Sincerely,

Gordon Martin
Superintendent of Education

Appendix 11: GSCS Incentive Disapproval

From:

Sent: Monday, June 1, 2015 10:49 AM

To: Sheikhalzoor, Noura

Cc:

Subject: Re: New Addition to My Kids Kitchen Study

Thanks, Noura. We do not employ incentives in recruiting research participants. While achieving adequate numbers is a significant concern for researchers, it is not our concern and we choose not to introduce incentives when we are facilitating access. If you were going through the media or other routes for recruitment it wouldn't be a problem but we choose not to participate with incentives. Thanks and I hope you understand our position.

Appendix 12: Phase 2 Invitation Letter

July, 23rd, 2015

Dear Mr.,

I would like to invite you to participate as a key informant in an additional part to my M.Sc. thesis. I started my research exploring the nutrition knowledge, skills, and behaviours of children after participating in Kids Kitchen program using qualitative interviews of participating children and their parents. I was challenged in the step of recruiting students and their parents to participate. Therefore, I could not reach my goal of numbers of participants. My research committee suggested that I take the route of studying these kind of challenges in recruiting participants (students and parents/guardians) to participate in programs or evaluations in school environments.

I need your input in an interview for 30-60 minutes to ask about these challenges, their reasons, and the approaches to prevent or overcome them. Your participation is voluntary and your provided data will be confidential. This part of research is approved by the University of Saskatchewan Behavioural Ethics Board. Your input will provide valuable information to inform program development policies and research in schools.

Please let me know in a reply your availability, and we can arrange a date and a time for the interview.

If you have any questions about the study, please feel free to contact me at: (306) 491-2577 or my research supervisor, Dr. Shawna Berenbaum at (306) 966-5836. We would be happy to answer your questions.

Thank you for your time.

Sincerely,

Noura Sheikhalzoor, RD

M.Sc. Candidate in Nutrition

cc. Dr. Shawna Berenbaum

Appendix 13: Phase 2 Consent Form

Participants Consent Form

Project Title: Children's Nutrition Knowledge, Skills, and Behaviour after Participating in a Cooking Program

Researcher: Noura Sheikhalzoor, M.Sc. Candidate in Nutrition, Division of Nutrition and Dietetics, College of Pharmacy and Nutrition, University of Saskatchewan, (306) 491-2577, noura.sheikhalzoor@usask.ca.

Supervisor: Dr. Shawna Berenbaum, Division of Nutrition and Dietetics, College of Pharmacy and Nutrition, University of Saskatchewan (306) 966-5836, shawna.berenbaum@usask.ca.

Purpose of the Research:

- Initially, the purpose of this study was to explore the nutrition knowledge, skills, and behaviours of children after participating in the Kids Kitchen program.
- The purpose of this part of the study is to explore the challenges of recruiting participants (children and/or parents) to participate in programs or research in the school environment.

Procedures:

- The study includes a 30 – 60 minutes interview with you.
- The interviews can be done face-to-face in a place of your choice or over the phone.
- The interviews will be recorded using a recorder. You can choose to have the recorder turned off anytime you wish.
- If you choose to, you will have an opportunity to read your interview transcript.
- Please feel free to ask any questions regarding the procedures and goals of the study or your role at any point during the study.

Potential Risks:

- There are no known or anticipated risks or side effects from participating in this study.
- You have the right not to answer any questions that you are not comfortable with.

Potential Benefits:

- This study will help inform policies in program development in schools.

- It will also help in informing future research in schools.

Confidentiality:

- Precautions will be taken to protect the confidentiality of your information.
- Data will be shared in presentations and written reports, but will not be associated with any names or personal data.

Storage of Data:

- During the study period, data will be stored safely with the researcher, where paper documents will be secured in a locked cabinet. Recordings and other computer files will be protected by a password.
- Data will be stored safely for up to 5 years after the end of the study with the research supervisor at the University of Saskatchewan.
- When the data no longer required, the data will be destroyed.

Right to Withdraw:

- Your participation is voluntary, and you can answer only those questions that you are comfortable with answering. You may withdraw from the research project for any reason, at any time without explanation or penalty of any sort.
- Whether you choose to participate or not will have no effect on you or your organization and its relationship with the University of Saskatchewan.
- Should you wish to withdraw, any data that you have contributed will be destroyed at your request.
- Your right to withdraw data from the study will apply until data has been pooled. After this date, October, 31st, 2015, it is possible that some form of research dissemination will have already occurred and it may not be possible to withdraw your data.

Follow up:

- To obtain the final results from the study, please contact the researcher, Noura Sheikhalzoor, at: Noura.sheikhalzoor@usask.ca
- I wish to review the transcripts of this interview. Yes___ No___

Questions or Concerns:

- Contact the researcher(s) using the information at the top of page 1;
- This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board on July 31st, 2015. Any questions regarding your rights as a participant

may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

Continued or On-going Consent:

- During the research period and in a need of follow-ups, consent will be obtained verbally from you for different study steps.

Your signature below indicates that you have read and understand the description provided.

“I have had an opportunity to ask questions and my/our questions have been answered. I consent to participate in the research project. A copy of this Consent Form has been given to me for my records.”

_____	_____	_____
<i>Name of Participant</i>	<i>Signature</i>	<i>Date</i>
_____	_____	
<i>Researcher's Signature</i>	<i>Date</i>	

Oral Consent

“I read and explained this Consent Form to the participant before receiving the participant's consent, and the participant had knowledge of its contents and appeared to understand it.”

_____	_____	_____
<i>Name of Participant</i>	<i>Researcher's Signature</i>	<i>Date</i>

A copy of this consent will be left with you, and a copy will be taken by the researcher.

Appendix 14: Phase 2 Key Informants Interview Guide

Key Informants Interview Guide

Thank you for participating in this interview. As you may know, I have faced some challenges in recruiting students and their parents to participate in my study about Kids Kitchen program. I would like to explore some of these challenges that come up when recruiting students for programs or research within the school environment.

1. What is your role within the school system?
2. What is your experience in students' or parents' recruitment within the school system?
3. What are the challenges in recruiting students or their parents/family members for program participation or evaluation in the school environment?
4. What are the reasons of these challenges?
(probe: socioeconomic status of families, people's perspective on research/university, administration, cost)
5. What are the strategies and approaches you used to prevent or overcome these challenges?
6. What are other suggested approaches to prevent or overcome these challenges?
7. Is there anything else you would like to add anything else in what we have discussed?